# 2013-2015
# Released Test

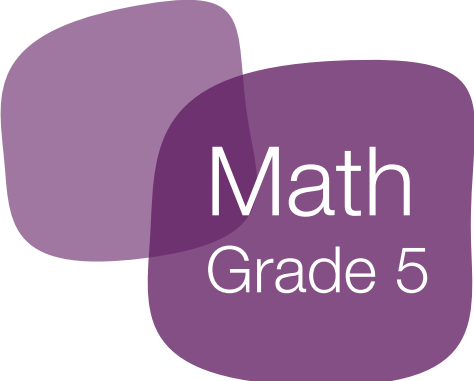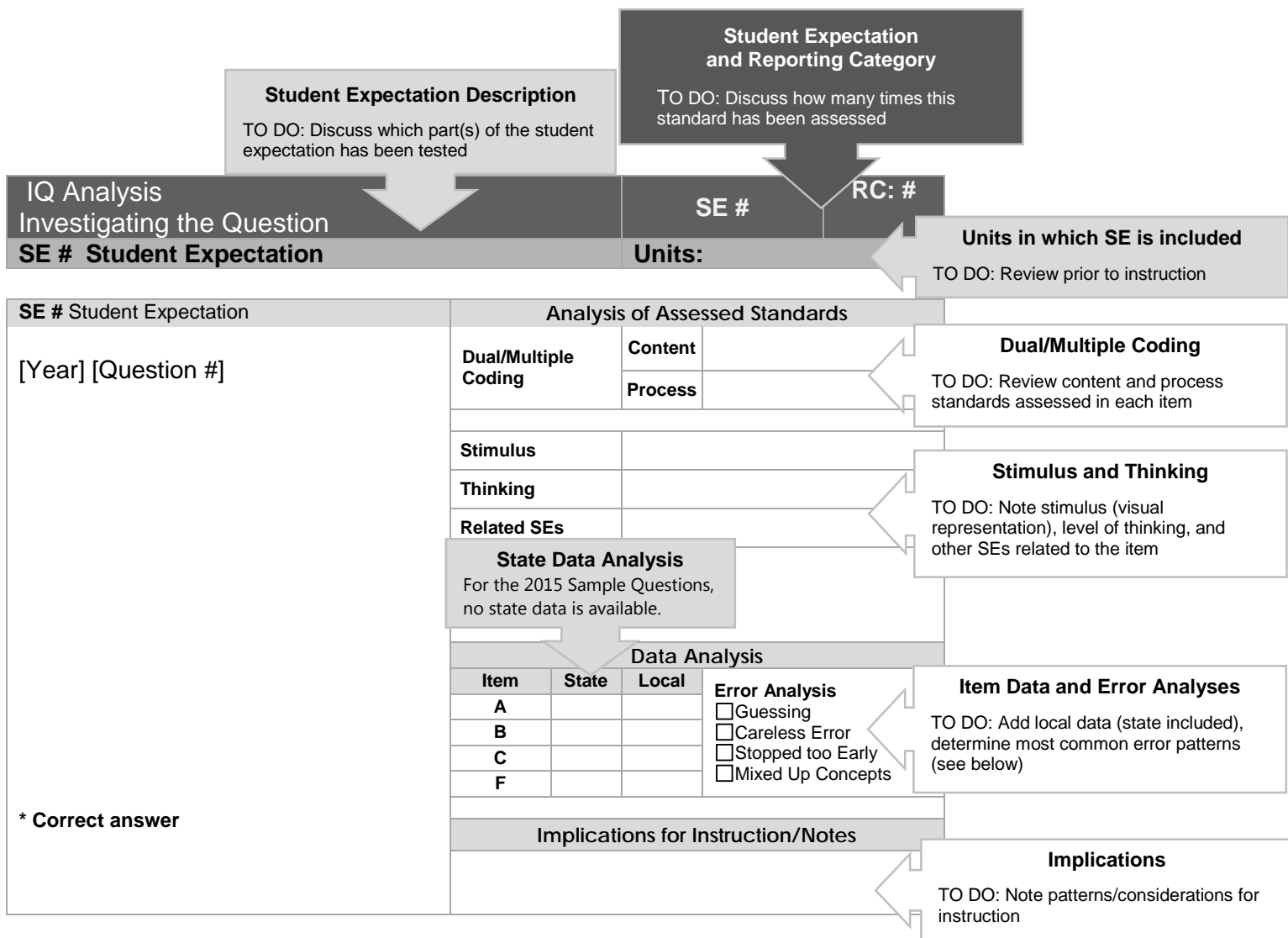## Aligned to the Standards

CONTENT BUILDER FOR THE PLC

## Math
### Grade 5

lead4ward

# Users Guide - IQ [Investigating the Questions] Released Tests

**Student Expectation Description**

TO DO: Discuss which part(s) of the student expectation has been tested

**Student Expectation and Reporting Category**

TO DO: Discuss how many times this standard has been assessed

| IQ Analysis Investigating the Question | SE # | RC: # |
|---|---|---|
| **SE #  Student Expectation** | **Units:** | |

**Units in which SE is included**

TO DO: Review prior to instruction

| SE # Student Expectation | Analysis of Assessed Standards | | |
|---|---|---|---|
| [Year] [Question #] | **Dual/Multiple Coding** | **Content** | |
| | | **Process** | |
| | **Stimulus** | | |
| | **Thinking** | | |
| | **Related SEs** | | |

**Dual/Multiple Coding**

TO DO: Review content and process standards assessed in each item

**Stimulus and Thinking**

TO DO: Note stimulus (visual representation), level of thinking, and other SEs related to the item

**State Data Analysis**
For the 2015 Sample Questions, no state data is available.

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | | | ☐Guessing |
| B | | | ☐Careless Error |
| C | | | ☐Stopped too Early |
| F | | | ☐Mixed Up Concepts |

**Item Data and Error Analyses**

TO DO: Add local data (state included), determine most common error patterns (see below)

**\* Correct answer**

### Implications for Instruction/Notes

**Implications**

TO DO: Note patterns/considerations for instruction

---

### Error Analysis | Type of Errors

The pattern of incorrect responses (highly chosen or distributed) indicates students may have made one or more of these error types:

- **Guessing**: Generally represented by equal distribution of incorrect answers. Students may not know how to start or may not know what the question is about.

- **Careless Errors:** Students cannot complete content specific procedures accurately. Make low-level, careless mistakes.

- **Stopped Too Early:** Students cannot transfer learning between contexts (item doesn't look like samples used in class), or they stop too early in problem solving.

- **Mixed Up Concepts:** Students misunderstand the underlying concepts. They may mix up concepts often related to academic vocabulary.

**5.2(A)** represent the value of the digit in decimals through the thousandths using expanded notation and numerals

**Units:**

No test questions 2013 – 2015

**5.2(B)** compare and order two decimals to thousandths and represent comparisons using the symbols >, <, or =

## 2015 – Sample Q1

1   The table shows the masses of four rocks.

Rocks

| Rock | Mass (kg) |
| --- | --- |
| S | 0.429 |
| T | 0.438 |
| U | 0.43 |
| V | 0.483 |

Which number sentence correctly compares the masses of two of the rocks?

**A**  $0.429 > 0.438$

**B**  $0.438 < 0.483$

**C**  $0.429 > 0.43$

**D**  $0.438 = 0.43$

**\* Correct answer (B)**

### Analysis of Assessed Standards

| Multi Coding | Content | Readiness |
| --- | --- | --- |
| | Process | 5.1(A), 5.1(B), 5.1(E), 5.1(F) |

| Stimulus | |
| --- | --- |
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A | | | ☐Guessing |
| B* | NA | | ☐Careless Error |
| C | | | ☐Stopped too Early |
| D | | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

---

**5.2(B) (New)** compare and order two decimals to thousandths and represent comparisons using the symbols >, <, or =
**5.1(B) (Old)** use place value to read, write, compare, and order decimals through the thousandths place

## 2013 – Q11

Alberto ran a race in 17.6 seconds. Jake ran the race in 18.307 seconds. Which race time is greater than 17.6 seconds but less than 18.307 seconds?

**A**  17.054 s

**B**  18.4 s

**C**  17.39 s

**D**  18.21 s

**\* Correct answer (D)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
| --- | --- | --- |
| | Process | 5.1(A) |

| Stimulus | |
| --- | --- |
| **Thinking** | |
| **Related SEs** | |

### Data Analysis
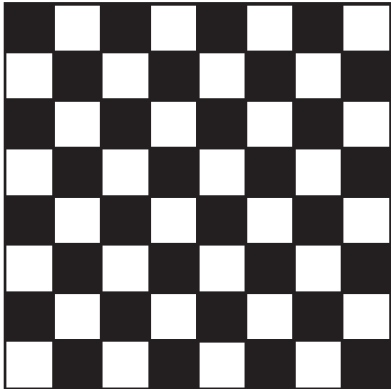
| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A | 11 | | ☐Guessing |
| B | 12 | | ☐Careless Error |
| C | 11 | | ☐Stopped too Early |
| D* | 65 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

No test questions 2013 – 2015

| IQ Analysis \| Investigating the Question | SE 5.3(A) | RC: 2 |
|---|---|---|
| **5.3(A)** estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division | **Units:** | |

**5.3(A) (New)** estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division

**5.4(A) (Old)** use strategies, including rounding and compatible numbers to estimate solutions to addition, subtraction, multiplication, and division problems

### 2014 – Q20

Yuan has a game board like the one shown below.



Which of the following is the best estimate of the number of black squares that are on 188 of these game boards?

**F** 4,000

**G** 3,000

**H** 2,500

**J** 6,000

**\* Correct answer (J)**

### Analysis of Assessed Standards

| **Dual Coding** | **Content** | Supporting |
|---|---|---|
| | **Process** | 5.1(B) |

| **Stimulus** | |
|---|---|
| **Thinking** | |
| **Related SEs** | |

#### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F | 6 | | ☐ Guessing |
| G | 10 | | ☐ Careless Error |
| H | 9 | | ☐ Stopped too Early |
| J* | 75 | | ☐ Mixed Up Concepts |

#### Implications for Instruction/Notes

**5.3(A) (New)** estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division

**8.2(C) (Old)** evaluate a solution for reasonableness

## 2014 – Q33

A baseball coach bought some bats and gloves for the school's baseball team. The bats cost $20 to $35, and the gloves cost $30 to $60. Which of these does NOT represent a reasonable total purchase price for 15 bats and 12 gloves?

**A** $1,350

**B** $890

**C** $1,200

**D** $705

**\* Correct answer (A)**

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(B) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | 57 | | ☐ Guessing |
| B | 8 | | ☐ Careless Error |
| C | 7 | | ☐ Stopped too Early |
| D | 26 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

---

**5.3(A) (New)** estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division

**6.2(D) (Old)** estimate and round to approximate reasonable results and to solve problems where exact answers are not required

## 2013 – Q23

**23** At a swimming pool, Hector swam between 9 and 21 laps each day. Each lap is 26.8 m long. Hector swam at this pool 10 days. Which of the following is a reasonable estimate of the total number of meters Hector swam?

**A** 1,000 m

**B** 9,000 m

**C** 4,500 m

**D** 1,800 m

**\* Correct answer (C)**

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(B) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 11 | | ☐ Guessing |
| B | 14 | | ☐ Careless Error |
| C* | 56 | | ☐ Stopped too Early |
| D | 19 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

| 5.3(A) (New) estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division | Analysis of Assessed Standards |
| --- | --- |

**5.4(A) (Old)** use strategies, including rounding and compatible numbers to estimate solutions to addition, subtraction, multiplication, and division problems

## 2013 – Q45

Anna pays $618 for six months of music lessons. She pays the same amount for lessons each month. Which of the following is the best estimate of the amount Anna pays each month?

A  $100

B  $150

C  $125

D  $200

**Analysis of Assessed Standards**

| Dual Coding | Content | Supporting |
| --- | --- | --- |
| | Process | 5.1(B) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A* | 68 | | ☐ Guessing |
| B | 7 | | ☐ Careless Error |
| C | 15 | | ☐ Stopped too Early |
| D | 9 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (A)**

---

| IQ Analysis | Investigating the Question | SE 5.3(B) | RC: 2 |
| --- | --- | --- |
| **5.3(B)** | **Units:** | |

| 5.3(B) (New) multiply with fluency a three-digit number by a two-digit number using the standard algorithm | Analysis of Assessed Standards |
| --- | --- |

**5.3(B) (Old)** use multiplication to solve problems involving whole numbers (no more than three digits times two digits without technology)

## 2014 – Q26

An individual computer lab session at a school is 24 minutes long. On Monday 313 students each completed a session at the computer lab. What is the total number of minutes that all these students spent in the computer lab on Monday?

F   337 min

G   7,402 min

H   1,878 min

J   Not here

**Analysis of Assessed Standards**

| Dual Coding | Content | Supporting |
| --- | --- | --- |
| | Process | 5.1(A) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| F | 10 | | ☐ Guessing |
| G | 11 | | ☐ Careless Error |
| H | 3 | | ☐ Stopped too Early |
| J* | 75 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (J)**

**5.3(B) (New)** multiply with fluency a three-digit number by a two-digit number using the standard algorithm

**5.3(B) (Old)** use multiplication to solve problems involving whole numbers (no more than three digits times two digits without technology)

## 2014 – Q47

A conference center has 12 rooms that each have a floor area of 875 square feet and 6 rooms that each have a floor area of 950 square feet. What is the total floor area, in square feet, of these rooms?

**A**  10,500 square feet

**B**  8,325 square feet

**C**  16,200 square feet

**D**  15,900 square feet

**\* Correct answer (C)**

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(B) |

| Stimulus | |
|---|---|
| **Thinking** | |
| **Related SEs** | |

#### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 17 | | ☐Guessing |
| B | 14 | | ☐Careless Error |
| C* | 58 | | ☐Stopped too Early |
| D | 9 | | ☐Mixed Up Concepts |

#### Implications for Instruction/Notes

---

**5.3(B) (New)** multiply with fluency a three-digit number by a two-digit number using the standard algorithm

**5.3(B) (Old)** use multiplication to solve problems involving whole numbers (no more than three digits times two digits without technology)

## 2013 – Q15

Brennon has a total of 187 postage stamps.

- He has 48 stamps that are each 14 millimeters wide.
- He has 139 stamps that are each 12 millimeters wide.

What is the total width of these stamps?

**A**  2,618 mm

**B**  2,230 mm

**C**  2,340 mm

**D**  657 mm

**\* Correct answer (C)**

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(B) |

| Stimulus | |
|---|---|
| **Thinking** | |
| **Related SEs** | |

#### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 11 | | ☐Guessing |
| B | 14 | | ☐Careless Error |
| C* | 64 | | ☐Stopped too Early |
| D | 10 | | ☐Mixed Up Concepts |

#### Implications for Instruction/Notes

**5.3(C) (New)** solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm

**5.3(C) (Old)** use division to solve problems involving whole numbers (no more than two-digit divisors and three-digit dividends without technology), including interpreting the remainder within a given context

## 2014 – Q12

Ezekiel has 433 golf balls that he can put in 11 boxes. Each box must contain the same number of golf balls. What is the greatest number of golf balls Ezekiel can put in each box?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

**Analysis of Assessed Standards**

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(A) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| 39 | 56 | | ☐Guessing |
| | 44 | | ☐Careless Error |
| | 0 | | ☐Stopped too Early |
| | 0 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (39)**

---

**5.3(C) (New)** solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm

**5.3(C) (Old)** use division to solve problems involving whole numbers (no more than two-digit divisors and three-digit dividends without technology), including interpreting the remainder within a given context

## 2014 – Q50

Wesley has 480 stamps in his collection. He puts these stamps into display cases. Each display case contains 15 stamps. How many display cases does Wesley need for his stamp collection?

**F**  32

**G**  212

**H**  36

**J**  465

**Analysis of Assessed Standards**

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(A) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F* | 79 | | ☐Guessing |
| G | 5 | | ☐Careless Error |
| H | 6 | | ☐Stopped too Early |
| J | 8 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (F)**

**5.3(C) (New)** solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm

**5.3(C) (Old)** use division to solve problems involving whole numbers (no more than two-digit divisors and three-digit dividends without technology), including interpreting the remainder within a given context

## Analysis of Assessed Standards

### 2013 – Q13

A gardener has 785 bricks to build a path in a garden. There will be 24 bricks in each row of the path. How many complete rows can the gardener make using 785 bricks?

A  32

B  17

C  33

D  65

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(B) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | 69 | | ☐ Guessing |
| B | 6 | | ☐ Careless Error |
| C | 19 | | ☐ Stopped too Early |
| D | 6 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (A)**

---

**5.3(C) (New)** solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm

**5.3(C) (Old)** use division to solve problems involving whole numbers (no more than two-digit divisors and three-digit dividends without technology), including interpreting the remainder within a given context

## Analysis of Assessed Standards

### 2013 – Q30

The numbers below all have something in common.

64
112
96
240
344

Which statement describes something these numbers have in common?

F  They are all divisible by 12.

G  They are all divisible by 16.

H  They are all divisible by 8.

J  They are all divisible by 6.

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(F) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F | 13 | | ☐ Guessing |
| G | 23 | | ☐ Careless Error |
| H* | 55 | | ☐ Stopped too Early |
| J | 8 | | ☐ Mixed Up Concepts |

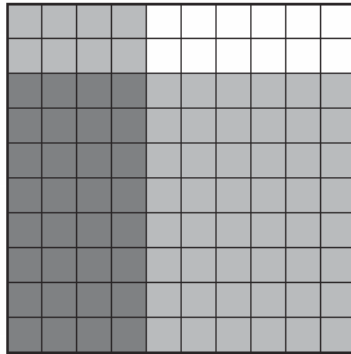### Implications for Instruction/Notes

**\* Correct answer (H)**

**5.3(D)** represent multiplication of decimals with products to the hundredths using objects and pictorial models, including area models

## 2015 – Sample Q4

**4**   The hundredths model in the figure is shaded to represent the multiplying of two numbers.



Which equation can be represented by the shaded parts of the model?

**A**   80 × 40 = 3,200

**B**   0.08 × 0.04 = 0.32

**C**   0.80 × 0.40 = 0.32

**D**   0.08 × 0.04 = 0.032

**\* Correct answer (C)**

### Analysis of Assessed Standards

| **Multi Coding** | **Content** | Supporting |
|---|---|---|
| | **Process** | 5.1(B), 5.1(D), 5.1(F) |

| **Stimulus** | |
|---|---|
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | **Error Analysis** |
|---|---|---|---|
| A | | | ☐ Guessing |
| B | NA | | ☐ Careless Error |
| C* | | | ☐ Stopped too Early |
| D | | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**5.3(E)** solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers

## 2015 – Sample Q5

5  Denise spent $3.45 on snacks every day for 11 days. What is the amount of money Denise spent on these snacks?

A  $379.50

B  $14.45

C  $37.95

D  $6.90

**Analysis of Assessed Standards**

| Multi Coding | Content | Readiness |
| --- | --- | --- |
| | Process | 5.1(A), 5.1(B), 5.1(F) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A | | | ☐Guessing |
| B | NA | | ☐Careless Error |
| C* | | | ☐Stopped too Early |
| D | | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (C)**

---

**5.3(E) (New)** solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers

**7.2(B) (Old)** use addition, subtraction, multiplication, and division to solve problems involving fractions and decimals

## 2014 – Q2

Mrs. Rodríguez will make name tags for each of the 45 choir members and 30 orchestra members. The materials for each name tag cost $0.44. What is the total cost of the materials Mrs. Rodríguez will use to make these name tags?

F  $33.00

G  $75.00

H  $58.20

J  $49.80

**Analysis of Assessed Standards**

| Dual Coding | Content | Readiness |
| --- | --- | --- |
| | Process | 5.1(A) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| F* | 84 | | ☐Guessing |
| G | 6 | | ☐Careless Error |
| H | 6 | | ☐Stopped too Early |
| J | 3 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes
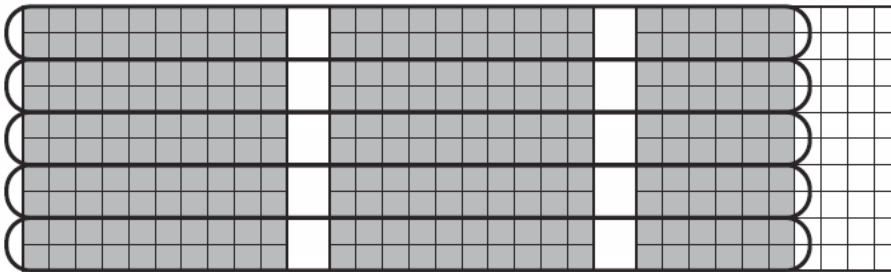
**\* Correct answer (F)**

**5.3(F)** represent quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using objects and pictorial models, including area models

## 2015 – Sample Q6

**6** The model is shaded to represent two and sixty-hundredths.
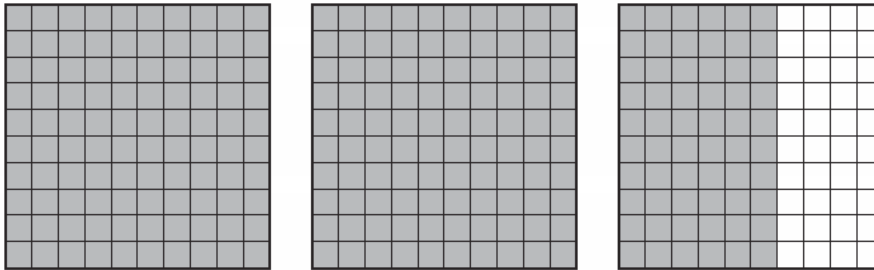


This model represents an equation.



Which equation is represented by this model?

**A** $2.50 \times 5 = 12.5$

**B** $2.60 \div 5 = 0.52$

**C** $52 \times 5 = 260$

**D** $2.06 \div 5 = 0.412$

**\* Correct answer (B)**

### Analysis of Assessed Standards

| **Multi Coding** | **Content** | Supporting |
|---|---|---|
| | **Process** | 5.1(B), 5.1(D), 5.1(F) |

| | |
|---|---|
| **Stimulus** | |
| **Thinking** | |
| **Related SEs** | |

#### Data Analysis

| Item | State | Local | **Error Analysis** |
|---|---|---|---|
| A | | | ☐Guessing |
| B* | NA | | ☐Careless Error |
| C | | | ☐Stopped too Early |
| D | | | ☐Mixed Up Concepts |

#### Implications for Instruction/Notes

**5.3(G)** solve for quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using strategies and algorithms, including the standard algorithm

## 2015 – Sample Q7

**7** Anthony has a goal of saving $96.20. He will save the same amount each week for 13 weeks. How much will Anthony need to save each week in order to meet his goal?

**A** $7.40

**B** $7.52

**C** $7.04

**D** $7.31

### Analysis of Assessed Standards

| Multi Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(A), 5.1(B), 5.1(F) |

| | |
|---|---|
| **Stimulus** | |
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | | | ☐ Guessing |
| B | NA | | ☐ Careless Error |
| C | | | ☐ Stopped too Early |
| D | | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (A)**

lead4ward

**5.3(H)** represent and solve addition and subtraction of fractions with unequal denominators referring to the same whole using objects, pictorial models, and properties of operations

## 2015 – Sample Q8

**8** Mrs. Ali collected notebook paper from her students at the beginning of the school year. The model is shaded to show the fraction of this notebook paper that Mrs. Ali used in each of the three months.

First month

Second month

Third month

What fraction of the notebook paper Mrs. Ali collected was used during these three months?

**A** $\dfrac{3}{8}$

**B** $\dfrac{7}{8}$

**C** $\dfrac{3}{14}$

**D** $\dfrac{1}{8}$

**\* Correct answer (B)**

### Analysis of Assessed Standards

| Multi Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(A), 5.1(B), 5.1(E), 5.1(F) |

| | |
|---|---|
| **Stimulus** | |
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | | | ☐Guessing |
| B* | NA | | ☐Careless Error |
| C | | | ☐Stopped too Early |
| D | | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**5.3(H) (New)** represent and solve addition and subtraction of fractions with unequal denominators referring to the same whole using objects, pictorial models, and properties of operations

**6.2(A) (Old)** model addition and subtraction situations involving fractions with objects, pictures, words, and numbers

## Analysis of Assessed Standards

### 2013 – Q15

Which model is shaded to best represent the expression below?

$$\frac{3}{10} + \frac{2}{5}$$
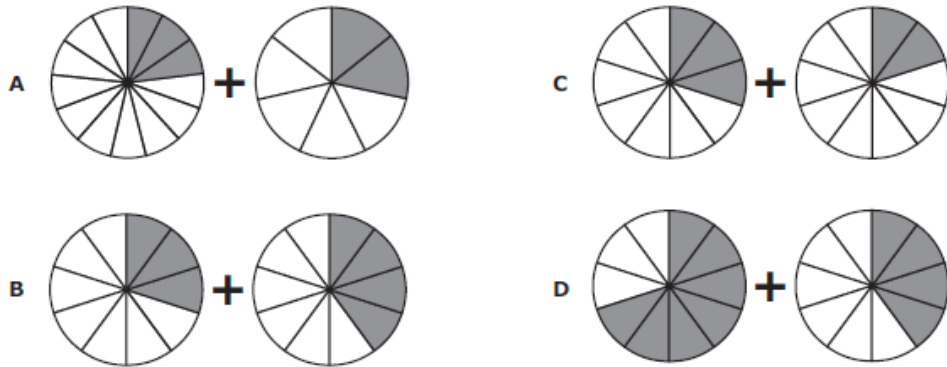


A

B

C

D

* Correct answer (B)

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(C) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 10 | | ☐ Guessing |
| B* | 64 | | ☐ Careless Error |
| C | 23 | | ☐ Stopped too Early |
| D | 3 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**5.3(I)**                  **Units:**

**5.3(I)** represent and solve multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models, including area models

## 2015 – Sample Q9

**9**   Weather delayed $\frac{4}{6}$ of the 24 flights departing from an airport. All the departing flights are listed in the chart.

### Departing Flights

| Flight #48 | Flight #111 | Flight #90 | Flight #38 |
|---|---|---|---|
| Flight #112 | Flight #222 | Flight #134 | Flight #46 |
| Flight #23 | Flight #564 | Flight #56 | Flight #116 |
| Flight #12 | Flight #72 | Flight #765 | Flight #677 |
| Flight #17 | Flight #86 | Flight #89 | Flight #422 |
| Flight #65 | Flight #329 | Flight #88 | Flight #499 |

How many flights departing from the airport were delayed by weather?

**A**   18

**B**   4

**C**   16

**D**   8

**\* Correct answer (C)**

### Analysis of Assessed Standards

| Multi Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(A), 5.1(B), 5.1(E), 5.1(F) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | | | ☐ Guessing |
| B | NA | | ☐ Careless Error |
| C* | | | ☐ Stopped too Early |
| D | | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**5.3(J)** represent division of a unit fraction by a whole number and the division of a whole number by a unit fraction such as 1/3 ÷ 7 and 7 ÷ 1/3 using objects and pictorial models, including area models     **Units:**

No test questions 2013 – 2015

**5.3(K)** add and subtract positive rational numbers fluently

## 2015 – Sample Q10

**10** The regular price of a calculator is $12.30. Warren paid 75¢ less than the regular price for the calculator. He also paid $1.48 for a pad of paper. What is the total amount Warren paid for these two items?

**A** $13.03

**B** $14.03

**C** $14.53

**D** $13.83

**\* Correct answer (A)**

### Analysis of Assessed Standards

| Multi Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(A), 5.1(B), 5.1(F) |

| | |
|---|---|
| **Stimulus** | |
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | | | ☐ Guessing |
| B | NA | | ☐ Careless Error |
| C | | | ☐ Stopped too Early |
| D | | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

## 5.3(K) (New) add and subtract positive rational numbers fluently
### 5.5(A) (Old) describe the relationship between sets of data in graphic organizers such as lists, tables, charts, and diagrams

## 2014 – Q5

5  Mike used a number machine. Each number he put into the machine came out as a different number according to a rule. Some examples are shown below.

**Number Machine**

82.05 → In Out → 78.042

70 → In Out → 65.992

58.208 → In Out → 54.2

43.008 → In Out → 39
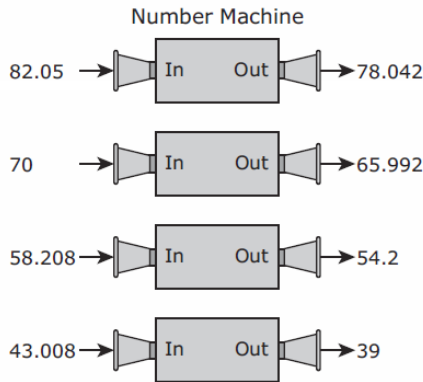
Which statement describes the relationship between the number Mike put into the machine and the number that came out of it?

A  The number that came out of the machine was 5.012 less than the number he put into it.

B  The number that came out of the machine was 4.008 less than the number he put into it.

C  The number that came out of the machine was 16.012 more than the number he put into it.

D  The number that came out of the machine was 4.008 more than the number he put into it.

**\* Correct answer (B)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(F) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 7 | | ☐ Guessing |
| B* | 78 | | ☐ Careless Error |
| C | 6 | | ☐ Stopped too Early |
| D | 10 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

---

## 5.3(K) (New) add and subtract positive rational numbers fluently
### 5.11(A) (Old) solve problems involving changes in temperature

## 2014 – Q13

13  A five-day weather forecast is shown below.

| Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|
| Rainy | Cloudy | Partly cloudy | Sunny | Sunny |
| High: 70°F | High: 74°F | High: 76°F | High: 82°F | High: 76°F |
| Low: 68°F | Low: 61°F | Low: 58°F | Low: 64°F | Low: 68°F |

Based on this forecast, on which days will there be a difference of 18°F between the high and low temperatures?

A  Wednesday, Thursday, and Friday

B  Thursday only

C  Wednesday and Thursday only

D  Monday only

**\* Correct answer (C)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 7 | | ☐ Guessing |
| B | 8 | | ☐ Careless Error |
| C* | 80 | | ☐ Stopped too Early |
| D | 5 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**5.3(K) (New)** add and subtract positive rational numbers fluently

**5.3(A) (Old)** use addition and subtraction to solve problems involving whole numbers and decimals

## 2014 – Q22

22 Mrs. Zapata paid a total of $8.17 to mail three packages.

- She paid $2.77 to mail the first package.
- She paid $3 to mail the second package.

How much did Mrs. Zapata pay to mail the third package?

F $3.60

G $2.40

H $6.37

J Not here

**\* Correct answer (G)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(B) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F | 6 | | ☐ Guessing |
| G* | 72 | | ☐ Careless Error |
| H | 3 | | ☐ Stopped too Early |
| J | 19 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

---

**5.3(K) (New)** add and subtract positive rational numbers fluently

**6.2(B) (Old)** use addition and subtraction to solve problems involving fractions and decimals

## 2014 – Q27

27 Lindsey spent $2\frac{1}{3}$ hours in a science lab on Wednesday.

- She spent $\frac{3}{4}$ hour preparing materials for an experiment.
- She spent $\frac{5}{6}$ hour conducting the experiment.
- She spent the rest of the time cleaning her lab station.

Based on this information, which statement is true?

A Lindsey spent $1\frac{8}{15}$ hours cleaning her lab station.

B Lindsey spent $\frac{2}{3}$ hour preparing materials and conducting the experiment.

C Lindsey spent the same amount of time conducting the experiment as she spent cleaning her lab station.

D Lindsey spent $\frac{1}{12}$ hour more conducting the experiment than she spent preparing materials for the experiment.

**\* Correct answer (D)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(A) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 16 | | ☐ Guessing |
| B | 14 | | ☐ Careless Error |
| C | 18 | | ☐ Stopped too Early |
| D* | 51 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**5.3(K) (New)** add and subtract positive rational numbers fluently
**6.2(B) (Old)** use addition and subtraction to solve problems involving fractions and decimals

## 2014 – Q42

42  Enrique bought a football and a puzzle at a store.

- He paid $15.35 for the football.
- He paid a total of $24.02 for the football and the puzzle.

How much did Enrique pay for the puzzle, in dollars and cents?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

| Dual Coding | Content | Readiness |
| --- | --- | --- |
| | Process | 5.1(A) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| | 65 | | ☐Guessing |
| | 35 | | ☐Careless Error |
| 8.67 | 0 | | ☐Stopped too Early |
| | 0 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (8.67)**

---

**5.3(K) (New)** add and subtract positive rational numbers fluently
**5.3(A) (Old)** use addition and subtraction to solve problems involving whole numbers and decimals

## 2014 – Q45

45  The table below shows the scores for two divers at a diving championship.

### Diving Championship

| Diver | Score |
| --- | --- |
| Carl | 399.8 |
| Eric | 462.25 |

What is the difference between these two scores?

A  73.45

B  137.65

C  62.45

D  173.45

| Dual Coding | Content | Readiness |
| --- | --- | --- |
| | Process | |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A | 6 | | ☐Guessing |
| B | 7 | | ☐Careless Error |
| C* | 83 | | ☐Stopped too Early |
| D | 3 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (C)**

Source: Texas Education Agency STAAR™ Released Test Questions     lead4ward

**5.3(K) (New)** add and subtract positive rational numbers fluently

**5.3(A) (Old)** use addition and subtraction to solve problems involving whole numbers and decimals

## 2013 – Q4

4   Owen lives 145.25 kilometers from Houston, Texas. Sharon lives 209.5 kilometers from Houston. What is the difference between these two distances?

   **F**  64.25 km

   **G**  54.35 km

   **H**  124.30 km

   **J**  144.35 km

**\* Correct answer (F)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 4.1(A) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F* | 85 | | ☐ Guessing |
| G | 4 | | ☐ Careless Error |
| H | 3 | | ☐ Stopped too Early |
| J | 7 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

---

**5.3(K) (New)** add and subtract positive rational numbers fluently

**6.2(B) (Old)** use addition and subtraction to solve problems involving fractions and decimals

## 2013 – Q6

6   Mia is $2\frac{1}{2}$ years older than Chloe. Allen is $6\frac{1}{2}$ years younger than Chloe. Mia is 12 years old. What is Allen's age?

   **F**  $14\frac{1}{2}$ years

   **G**  3 years

   **H**  8 years

   **J**  $18\frac{1}{2}$ years

**\* Correct answer (G)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(B) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F | 3 | | ☐ Guessing |
| G* | 72 | | ☐ Careless Error |
| H | 21 | | ☐ Stopped too Early |
| J | 3 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**5.3(K) (New)** add and subtract positive rational numbers fluently
**6.2(B) (Old)** use addition and subtraction to solve problems involving fractions and decimals

## 2013 – Q27

27  María bought 8 cups of strawberries. She used $1\frac{1}{2}$ cups of the strawberries to make a salad and $3\frac{3}{8}$ cups of the strawberries to make a pie. She needs 4 cups of strawberries to make milk shakes. Does María have enough strawberries left to make the milk shakes?

A  No, because $8 - \left(3\frac{3}{8} + 1\frac{4}{8}\right) = 3\frac{1}{8}$, and $3\frac{1}{8} < 4$

B  Yes, because $8 - 3\frac{3}{8} = 4\frac{5}{8}$, and $4\frac{5}{8} > 4$

C  No, because $\left(8 - 3\frac{3}{8}\right) - 4 = \frac{5}{8}$, and $\frac{5}{8} < 4$

D  Yes, because $8 + 3\frac{3}{8} + 1\frac{1}{2} = 12\frac{7}{8}$, and $12\frac{7}{8} > 4$

**\* Correct answer (A)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(F) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | 54 | | ☐Guessing |
| B | 22 | | ☐Careless Error |
| C | 15 | | ☐Stopped too Early |
| D | 8 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

---

**5.3(K) (New)** add and subtract positive rational numbers fluently
**6.2(B) (Old)** use addition and subtraction to solve problems involving fractions and decimals

## 2013 – Q41

41  Mr. Lee mailed 3 packages. The greatest amount he paid to mail one of these packages was $3.60. The least amount he paid to mail one of these packages was $1.70. What could be the total amount Mr. Lee paid to mail the 3 packages?

A  $8.30

B  $11.50

C  $5.10

D  $10.80

**\* Correct answer (A)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(B) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | 61 | | ☐Guessing |
| B | 5 | | ☐Careless Error |
| C | 22 | | ☐Stopped too Early |
| D | 11 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

lead4ward

| 5.3(K) (New) add and subtract positive rational numbers fluently | Analysis of Assessed Standards | | |
|---|---|---|---|
| 5.3(A) (Old) use addition and subtraction to solve problems involving whole numbers and decimals | | | |

**5.3(K) (New)** add and subtract positive rational numbers fluently
**5.3(A) (Old)** use addition and subtraction to solve problems involving whole numbers and decimals

## 2013 – Q43

43 Lisa cut a rope that was 19.75 meters long into 3 pieces. The first piece of rope was 6.4 meters long, and the second piece of rope was 4.36 meters long. How long was the third piece of rope?

A  10.76 m

B  8.99 m

C  30.51 m

D  9.35 m

**Analysis of Assessed Standards**

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 4.1(B) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 12 | | ☐ Guessing |
| B* | 71 | | ☐ Careless Error |
| C | 6 | | ☐ Stopped too Early |
| D | 11 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (B)**

---

| IQ Analysis \| Investigating the Question | SE 5.3(L) | RC: 2 |
|---|---|---|
| **5.3(L)** | **Units:** | |

| 5.3(L) divide whole numbers by unit fractions and unit fractions by whole numbers | Analysis of Assessed Standards |
|---|---|

**5.3(L)** divide whole numbers by unit fractions and unit fractions by whole numbers

## 2015 – Sample Q11

11 Malia had 15 lb of birdseed. She fed her birds $\frac{1}{5}$ lb of birdseed every day until all the birdseed was gone. For how many days did Malia feed the birdseed to her birds?

A  20 days

B  3 days

C  90 days

D  75 days

**Analysis of Assessed Standards**

| Multi Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(A), 5.1(B), 5.1(F) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | | | ☐ Guessing |
| B | NA | | ☐ Careless Error |
| C | | | ☐ Stopped too Early |
| D* | | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (D)**

## 5.4(A) (New) identify prime and composite numbers
## 5.5(B) (Old) identify prime and composite numbers using concrete objects, pictorial models, and patterns in factor pairs

### 2014 – Q16

Which group of horseshoes represents a prime number?

F

H

G

J

**\* Correct answer (G)**

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
| --- | --- | --- |
| | Process | 5.1(C) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

#### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| F | 10 | | ☐ Guessing |
| G* | 75 | | ☐ Careless Error |
| H | 7 | | ☐ Stopped too Early |
| J | 8 | | ☐ Mixed Up Concepts |

#### Implications for Instruction/Notes

---

## 5.4(A) (New) identify prime and composite numbers
## 5.5(B) (Old) identify prime and composite numbers using concrete objects, pictorial models, and patterns in factor pairs

### 2013 – Q42

Luke made the list of numbers below.

| 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

How many of the numbers in Luke's list are prime numbers?

F  3

G  7

H  10

J  5

**\* Correct answer (F)**

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
| --- | --- | --- |
| | Process | 5.1(B) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

#### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| F* | 59 | | ☐ Guessing |
| G | 7 | | ☐ Careless Error |
| H | 3 | | ☐ Stopped too Early |
| J | 30 | | ☐ Mixed Up Concepts |

#### Implications for Instruction/Notes

**5.4(B)** represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity

### 2015 – Sample Q12

**12** Pedro ordered 24 boxes of baseballs. Each box contained 16 baseballs. Pedro used 8 of these baseballs during a game. Which equation can be used to find $b$, the total number of these baseballs that Pedro did not use during the game?

**A** $b = (24 + 16) - 8$

**B** $b = (24 \times 16) - 8$

**C** $b = (24 - 16) \div 8$

**D** $b = (24 \times 16) + 8$

### Analysis of Assessed Standards

| Multi Coding | Content | Readiness |
| --- | --- | --- |
| | Process | 5.1(A), 5.1(B), 5.1(D), 5.1(F) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

#### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A | | | ☐ Guessing |
| B* | NA | | ☐ Careless Error |
| C | | | ☐ Stopped too Early |
| D | | | ☐ Mixed Up Concepts |

#### Implications for Instruction/Notes

**\* Correct answer (B)**

---

**5.4(B) (New)** represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity

**7.2(F) (Old)** select and use appropriate operations to solve problems and justify the selections

### 2014 – Q7

Abe is buying taco shells for a party. There will be 13 adults and 17 children attending the party. He plans to make 3 tacos for each adult and 1 taco for each child. There are 8 taco shells in each package. What is the least number of packages of taco shells Abe will need to buy in order to have enough tacos for the people attending the party?

**A** 7, because $(13 \times 3 + 17) \div 8 = 7$

**B** 28, because $(13 \times 17 + 3) \div 8 = 28$

**C** 80, because $(13 + 17) \times 8 \div 3 = 80$

**D** 8, because $(13 + 17 \times 3) \div 8 = 8$

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
| --- | --- | --- |
| | Process | 5.1(G) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

#### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A* | 76 | | ☐ Guessing |
| B | 7 | | ☐ Careless Error |
| C | 7 | | ☐ Stopped too Early |
| D | 10 | | ☐ Mixed Up Concepts |

#### Implications for Instruction/Notes

**\* Correct answer (A)**

**5.4(B) (New)** represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity

**5.6(A) (Old)** select from and use diagrams and equations such as y = 5 + 3 to represent meaningful problem situations

## 2014 – Q40

Nola had 124 sheets of colored paper.

- She used 20 sheets to make a picture.
- She used all the remaining sheets to make 4 posters.
- She used the same number of sheets to make each poster.

Which equation can be used to find $n$, the number of sheets of colored paper Nola used to make each poster?

**F** $(124 + 20) \times 4 = n$

**G** $(124 - 20) \div 4 = n$

**H** $(124 - 20) \times 4 = n$

**J** $(124 + 20) \div 4 = n$

**\* Correct answer (G)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(E) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F | 9 | | ☐ Guessing |
| G* | 72 | | ☐ Careless Error |
| H | 12 | | ☐ Stopped too Early |
| J | 7 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

---

**5.4(B) (New)** represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity

**7.5(B) (Old)** formulate problem situations when given a simple equation and formulate an equation when given a problem situation

## 2014 – Q47

The temperature at 7 P.M. was 45 degrees Fahrenheit. From 7 P.M. to 11 P.M. the temperature decreased 5 degrees each hour. Which equation can be used to find $t$, the temperature at 11 P.M.?

**A** $t = 45 - 5(11 - 7)$

**B** $t = 45 - 5(11 + 7)$

**C** $t = 45 \div 5(11 - 7)$

**D** $t = 45 + 5(11 - 7)$

**\* Correct answer (A)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | 58 | | ☐ Guessing |
| B | 15 | | ☐ Careless Error |
| C | 19 | | ☐ Stopped too Early |
| D | 8 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**5.4(B) (New)** represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity

**6.5(A) (Old)** formulate equations from problem situations described by linear relationships

## 2013 – Q50

**50** At a movie theater adult tickets cost \$10, and child tickets cost \$6. Which equation can be used to find $s$, the total number of dollars a family of $k$ adults and 5 children would pay for movie tickets?

**F** $s = 10k + 6(5)$

**G** $s = 6k + 10(5)$

**H** $s = (10 + 6) \cdot (k + 5)$

**J** $s = 10k - 6(5)$

**\* Correct answer (F)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 6.1(D) |

| Stimulus | |
|---|---|
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F* | 70 | | ☐Guessing |
| G | 8 | | ☐Careless Error |
| H | 15 | | ☐Stopped too Early |
| J | 6 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**5.4(C)** generate a numerical pattern when given a rule in the form y = ax or y = x + a and graph

## Analysis of Assessed Standards

2015 – Sample Q13

**13** The ordered pairs for the points on the coordinate plane satisfy the equation $y = x + 3$.
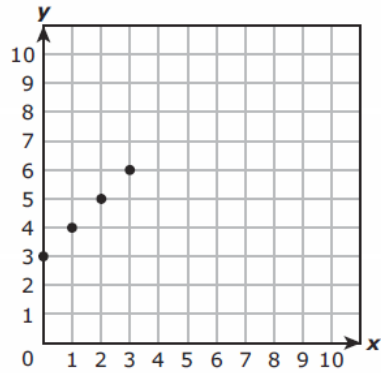


Which of these tables shows other points that satisfy the equation $y = x + 3$?

**A**

| x | 4 | 7 | 10 | 13 |
|---|---|---|----|----|
| y | 6 | 9 | 12 | 15 |

**C**

| x | 9 | 12 | 15 | 18 |
|---|---|----|----|----|
| y | 12 | 15 | 18 | 21 |

**B**

| x | 12 | 15 | 18 | 21 |
|---|----|----|----|----|
| y | 9 | 12 | 15 | 18 |

**D** None of these

**\* Correct answer (C)**

| | Content | Readiness |
|---|---|---|
| **Multi Coding** | Process | 5.1(B), 5.1(D), 5.1(F) |

| **Stimulus** | |
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | **Error Analysis** |
|---|---|---|---|
| A | | | ☐Guessing |
| B | NA | | ☐Careless Error |
| C* | | | ☐Stopped too Early |
| D | | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**5.4(D) (New)** recognize the difference between additive and multiplicative numerical patterns given in a table or graph

**5.5(A) (Old)** describe the relationship between sets of data in graphic organizers such as lists, tables, charts, and diagrams

## 2014 – Q43

The table below shows the number of puzzles Eduardo completed each week. It shows the number of puzzle pieces that he used each week.

### Puzzles

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 |
|---|---|---|---|---|---|
| Number of Puzzles Completed | 10 | 5 | 6 | 4 | 9 |
| Number of Puzzle Pieces | 500 | 250 | 300 | 200 | 450 |

Based on the table, the number of puzzles Eduardo completed each week was equal to the number of puzzle pieces that week —

**A** divided by 2

**B** divided by 50

**C** minus 250

**D** minus 5

**\* Correct answer (B)**

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(F) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 9 | | ☐ Guessing |
| B* | 82 | | ☐ Careless Error |
| C | 5 | | ☐ Stopped too Early |
| D | 3 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

| 5.4(D) (New) recognize the difference between additive and multiplicative numerical patterns given in a table or graph | Analysis of Assessed Standards | | |
|---|---|---|---|
| 5.5(A) (Old) describe the relationship between sets of data in graphic organizers such as lists, tables, charts, and diagrams | | | |

**2014 – Q14**

The table below shows Ted's age at the end of different grade levels.

Ted's Age

| Grade Level | Age (years) |
|---|---|
| 3 | 9 |
| 4 | 10 |
| 7 | 13 |
| 11 | 17 |

Which statement describes the relationship between Ted's grade level and his age?

**F** Ted's age is equal to his grade level times 3.

**G** Ted's age is equal to his grade level divided by 3.

**H** Ted's age is equal to 6 less than his grade level.

**J** Ted's age is equal to 6 more than his grade level.

**\* Correct answer (J)**

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(F) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F | 4 | | ☐ Guessing |
| G | 4 | | ☐ Careless Error |
| H | 28 | | ☐ Stopped too Early |
| J* | 65 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

---

| IQ Analysis | Investigating the Question | SE 5.4(E) | RC: 1 |
|---|---|---|
| **5.4(E)** | **Units:** | |

| 5.4(E) describe the meaning of parentheses and brackets in a numeric expression | Analysis of Assessed Standards | | |
|---|---|---|---|

**2015 – Sample Q2**

**2** An expression is given.

$$3 \times (8 + 2) \div 2$$

Which statement is true about the parentheses in this expression?

**A** The parentheses indicate that $8 + 2$ should be solved first.

**B** The parentheses indicate that $8 + 2$ should be solved last.

**C** The parentheses indicate that $2 \div 2$ should be solved last.

**D** The parentheses indicate that $3 \times 8$ should be solved first.

**\* Correct answer (A)**

| Multi Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(B), 5.1(C), 5.1(F) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | | | ☐ Guessing |
| B | NA | | ☐ Careless Error |
| C | | | ☐ Stopped too Early |
| D | | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

lead4ward

## 5.4(F) simplify numerical expressions that do not involve exponents, including up to two levels of grouping

### 2015 – Sample Q3

**3** What is the value of this expression?

$$[36 + (3 \times 2)] \div 6$$

**A** 7

**B** 37

**C** 13

**D** 42

**\* Correct answer (A)**

### Analysis of Assessed Standards

| Multi Coding | Content | Readiness |
| --- | --- | --- |
| | Process | 5.1(B), 5.1(F) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A* | | | ☐ Guessing |
| B | NA | | ☐ Careless Error |
| C | | | ☐ Stopped too Early |
| D | | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

---

## 5.4(F) (New) simplify numerical expressions that do not involve exponents, including up to two levels of grouping
## 6.2(E) (Old) use order of operations to simplify whole number expressions (without exponents) in problem solving situations

### 2014 – Q24

The air temperature in Mrs. Stokes's classroom was 90°F at 7:00 A.M. She turned on the air conditioner, and the air temperature decreased 2°F every 10 minutes for the next hour. By 8:30 A.M., the air temperature had decreased another 4°F. The expression below can be used to determine the air temperature in Mrs. Stokes's classroom at 8:30 A.M.

$$90 - 2(60 \div 10) - 4$$

What was the air temperature in Mrs. Stokes's classroom at 8:30 A.M.?

**F** 74°F

**G** 70°F

**H** 86°F

**J** 82°F

**\* Correct answer (F)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
| --- | --- | --- |
| | Process | 5.1(A) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| F* | 63 | | ☐ Guessing |
| G | 9 | | ☐ Careless Error |
| H | 17 | | ☐ Stopped too Early |
| J | 11 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

| **5.4(F) (New)** simplify numerical expressions that do not involve exponents, including up to two levels of grouping | Analysis of Assessed Standards | | |
|---|---|---|---|

**6.2(E) (Old)** use order of operations to simplify whole number expressions (without exponents) in problem solving situations

## 2014 – Q46

There are a total of 950 boxes of shoes at a store.

- Half of the boxes contain athletic shoes.
- Another 125 boxes contain dress shoes.
- Of the remaining boxes of shoes, 4 out of 5 boxes contain sandals.

Based on the expression below, how many boxes at the store contain sandals?

$$4(950 \div 2 - 125) \div 5$$

**F** 280

**G** 355

**H** 450

**J** 255

**\* Correct answer (F)**

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(A) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F* | 68 | | ☐Guessing |
| G | 12 | | ☐Careless Error |
| H | 10 | | ☐Stopped too Early |
| J | 10 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**5.4(G) (New)** use concrete objects and pictorial models to develop the formulas for the volume of a rectangular prism, including the special form for a cube
($V=l \times w \times h$, $V= s \times s \times s$, and $V=Bh$)

**7.9(B) (Old)** connect models for volume of prisms (triangular and rectangular) and cylinders to formulas of prisms (triangular and rectangular) and cylinders

## 2014 – Q3

A clear file box shaped like a rectangular prism is modeled below. The shaded part represents one base of the box.



11 in.

14 in.

19 in.
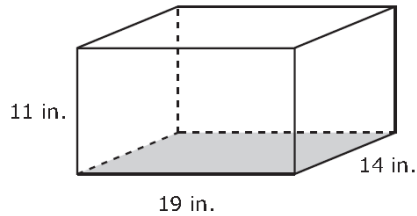
A formula for finding the volume of a rectangular prism is $V = Bh$. Which equation can be used to find $B$, the area of the shaded base of the box in square inches?

**A** $B = \dfrac{1}{2}(19)(14)$

**B** $B = 19 + 14$

**C** $B = (19)(14)$

**D** $B = 2(19) + 2(14)$

**\* Correct answer (C)**

### Analysis of Assessed Standards

| Dual Coding | Content | |
| --- | --- | --- |
| | Process | 5.1(D) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A | 14 | | ☐ Guessing |
| B | 4 | | ☐ Careless Error |
| C* | 72 | | ☐ Stopped too Early |
| D | 10 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**5.4(H)** represent and solve problems related to perimeter and/or area and related to volume

## 2015 – Sample Q14

14 The base of a rectangular prism has a length of 15 inches and a width of 13 inches. What is the area of this base of the prism in square inches?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

### Analysis of Assessed Standards

| **Multi Coding** | Content | Readiness |
| --- | --- | --- |
| | Process | 5.1(B), 5.1(C), 5.1(F) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

#### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| 195 | NA | | ☐Guessing<br>☐Careless Error<br>☐Stopped too Early<br>☐Mixed Up Concepts |

#### Implications for Instruction/Notes

**\* Correct answer (195)**

---

**5.4(H) (New)** represent and solve problems related to perimeter and/or area and related to volume
**5.10(C) (Old)** select and use appropriate units and formulas to measure length, perimeter, area, and volume

## 2014 – Q33

The side length of a square is 20 millimeters. Which statement about this square is true?

A  The perimeter of the square is 400 millimeters, because $20 \times 20 = 400$.

B  The perimeter of the square is 80 millimeters, because $20 \times 4 = 80$.

C  The area of the square is 40 square millimeters, because $20 \times 2 = 40$.

D  The area of the square is 80 square millimeters, because $20 \times 4 = 80$.

### Analysis of Assessed Standards

| **Dual Coding** | Content | Readiness |
| --- | --- | --- |
| | Process | 5.1(G) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

#### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A | 12 | | ☐Guessing |
| B* | 62 | | ☐Careless Error |
| C | 12 | | ☐Stopped too Early |
| D | 13 | | ☐Mixed Up Concepts |

#### Implications for Instruction/Notes

**\* Correct answer (B)**

**5.4(H) (New)** represent and solve problems related to perimeter and/or area and related to volume

**7.4(A) (Old)** generate formulas involving unit conversions within the same system (customary and metric), perimeter, area, circumference, volume, and scaling

## 2014 – Q35

Rosalind drew a rectangle with a width of 11 centimeters and a length of 14 centimeters. Which equation can be used to determine $P$, the perimeter of this rectangle in millimeters?

**A** $P = 10(2 \cdot 11 + 2 \cdot 14)$

**B** $P = 10(11 + 14)$

**C** $P = \dfrac{2 \cdot 11 + 2 \cdot 14}{10}$

**D** $P = \dfrac{11 + 14}{10}$

**\* Correct answer (A)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
|  | Process |  |

| Stimulus |  |
|---|---|
| **Thinking** |  |
| **Related SEs** |  |

#### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | 46 |  | ☐Guessing |
| B | 12 |  | ☐Careless Error |
| C | 33 |  | ☐Stopped too Early |
| D | 8 |  | ☐Mixed Up Concepts |

#### Implications for Instruction/Notes

---

**5.4(H) (New)** represent and solve problems related to perimeter and/or area and related to volume

**5.10(C) (Old)** select and use appropriate units and formulas to measure length, perimeter, area, and volume

## 2014 – Q44

Mr. Williams brought an ice chest filled with water bottles to band practice. A model of the ice chest is shown below.



18 in.

19 in.

30 in.
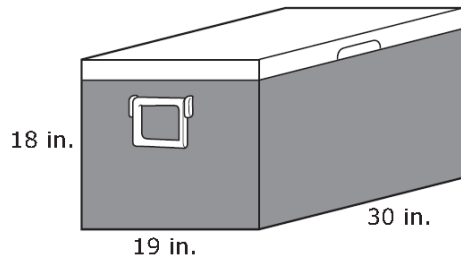
What is the volume, in cubic inches, of the ice chest?

**F** 13,760 cubic inches

**G** 570 cubic inches

**H** 67 cubic inches

**J** 10,260 cubic inches

**\* Correct answer (J)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
|  | Process | 5.1(A) |

| Stimulus |  |
|---|---|
| **Thinking** |  |
| **Related SEs** |  |

#### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F | 5 |  | ☐Guessing |
| G | 11 |  | ☐Careless Error |
| H | 14 |  | ☐Stopped too Early |
| J* | 70 |  | ☐Mixed Up Concepts |

#### Implications for Instruction/Notes

lead4ward

**5.4(H) (New)** represent and solve problems related to perimeter and/or area and related to volume

**5.10(C) (Old)** select and use appropriate units and formulas to measure length, perimeter, area, and volume

## 2013 – Q33

The side lengths of a field are shown below.



0.6 mile

0.81 mile

0.39 mile

1.2 miles
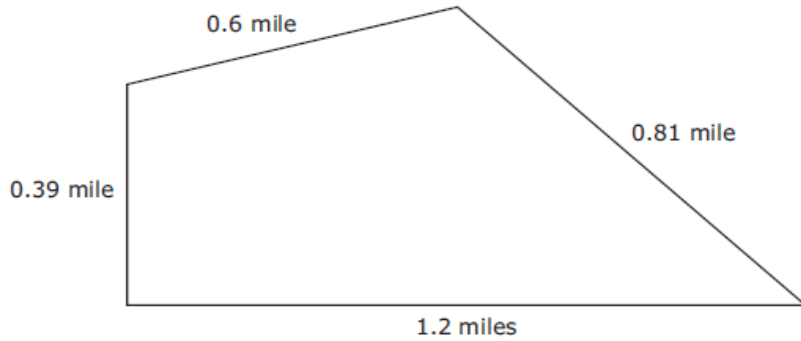
What is the perimeter of the field?

A  1.41 mi

B  3.18 mi

C  3 mi

D  2 mi

* Correct answer (C)

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

#### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 5 | | ☐ Guessing |
| B | 12 | | ☐ Careless Error |
| C* | 75 | | ☐ Stopped too Early |
| D | 8 | | ☐ Mixed Up Concepts |

#### Implications for Instruction/Notes

---

**5.4(H) (New)** represent and solve problems related to perimeter and/or area and related to volume

**5.10(C) (Old)** select and use appropriate units and formulas to measure length, perimeter, area, and volume

## 2013 – Q46

Wesley has a cube with a volume of 8 cubic centimeters. Use the ruler provided to measure the dimensions of each square below to the nearest centimeter. Which square is congruent to a face of Wesley's cube?



F

H

G

J

* Correct answer (H)

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(C) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

#### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F | 6 | | ☐ Guessing |
| G | 4 | | ☐ Careless Error |
| H* | 73 | | ☐ Stopped too Early |
| J | 16 | | ☐ Mixed Up Concepts |

#### Implications for Instruction/Notes

lead4ward

**5.5(A)** classify two-dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties

**2015 – Sample Q15**



**15** Alex filled out a graphic organizer about polygons. Here is a section of his graphic organizer.
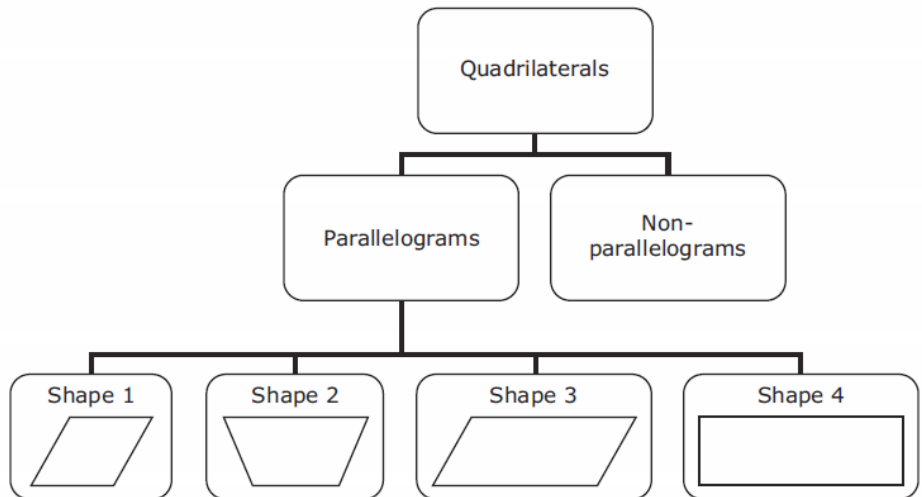
Which shapes appear to be classified correctly?

**A** Shapes 1 and 3 only

**B** Shapes 2 and 4

**C** Shapes 1, 2, and 3

**D** Shapes 1, 3, and 4

**\* Correct answer (D)**

### Analysis of Assessed Standards

| Multi Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(A), 5.1(B), 5.1(E), 5.1(F) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | | | ☐ Guessing |
| B | NA | | ☐ Careless Error |
| C | | | ☐ Stopped too Early |
| D* | | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

No test questions 2013 – 2015

No test questions 2013 – 2015

**5.7(A) (New)** solve problems by calculating conversions within a measurement system, customary or metric
**5.10(A) (Old)** perform simple conversions within the same measurement system (SI (metric) or customary)

### 2014 – Q7

The masses of two gorillas are given below.

- A female gorilla has a mass of 85,000 grams.
- A male gorilla has a mass of 220 kilograms.

What is the difference between these two masses in grams?

**A** 135,000 g

**B** 84,780 g

**C** 63,000 g

**D** 305,000 g

**\* Correct answer (A)**

#### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
| --- | --- | --- |
| | Process | 5.1(A) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

#### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A* | 55 | | ☐Guessing |
| B | 26 | | ☐Careless Error |
| C | 13 | | ☐Stopped too Early |
| D | 5 | | ☐Mixed Up Concepts |

#### Implications for Instruction/Notes

---

**5.7(A) (New)** solve problems by calculating conversions within a measurement system, customary or metric
**6.8(D) (Old)** convert measures within the same measurement system (customary and metric) based on relationships between units

### 2014 – Q9

On Tuesday morning a school cafeteria served 16 gallons of orange juice during breakfast. How many cups are in 16 gallons?

**A** 256 cups

**B** 64 cups

**C** 2,048 cups

**D** 128 cups

**\* Correct answer (A)**

#### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
| --- | --- | --- |
| | Process | 5.1(A) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

#### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A* | 70 | | ☐Guessing |
| B | 12 | | ☐Careless Error |
| C | 3 | | ☐Stopped too Early |
| D | 14 | | ☐Mixed Up Concepts |

#### Implications for Instruction/Notes

| **5.7(A) (New)** solve problems by calculating conversions within a measurement system, customary or metric |
| --- |
| **4.11(B) (Old)** perform simple conversions between different units of length, between different units of capacity, and between different units of weight within the customary measurement system |

## Analysis of Assessed Standards

### 2014 – Q13

Fernando's car weighs 2 tons. Keith's car weighs 3,285 pounds. What is the difference between these two weights in pounds?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

| **Dual Coding** | **Content** | Supporting |
| --- | --- | --- |
| | **Process** | 5.1(A) |

| **Stimulus** | |
| --- | --- |
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| | 59 | | ☐Guessing |
| 715 | 41 | | ☐Careless Error |
| | 0 | | ☐Stopped too Early |
| | 0 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (715)**

---

| **5.7(A) (New)** solve problems by calculating conversions within a measurement system, customary or metric |
| --- |
| **5.10(A) (Old)** perform simple conversions within the same measurement system (SI (metric) or customary) |

## Analysis of Assessed Standards

### 2014 – Q37

After a parade there were 4 tons of trash to be picked up. By the end of the day, volunteers had picked up 7,200 pounds of trash. How many pounds of trash were still left to be picked up at the end of the day?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

| **Dual Coding** | **Content** | Supporting |
| --- | --- | --- |
| | **Process** | 5.1(A) |

| **Stimulus** | |
| --- | --- |
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| | 72 | | ☐Guessing |
| 800 | 27 | | ☐Careless Error |
| | 0 | | ☐Stopped too Early |
| | 0 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (800)**

**5.7(A) (New)** solve problems by calculating conversions within a measurement system, customary or metric

**6.8(D) (Old)** convert measures within the same measurement system (customary and metric) based on relationships between units

## 2014 – Q40

A farmer has a bale of hay with a mass of 36 kilograms. How many milligrams of hay are in the bale?

**F** 36,000,000 mg

**G** 36,000 mg

**H** 3,600,000 mg

**J** 360,000 mg

**\* Correct answer (F)**

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
| --- | --- | --- |
| | Process | 5.1(A) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

#### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| F* | 48 | | ☐Guessing |
| G | 33 | | ☐Careless Error |
| H | 7 | | ☐Stopped too Early |
| J | 12 | | ☐Mixed Up Concepts |

#### Implications for Instruction/Notes

---

**5.7(A) (New)** solve problems by calculating conversions within a measurement system, customary or metric

**4.11(B) (Old)** perform simple conversions between different units of length, between different units of capacity, and between different units of weight within the customary measurement system

## 2013 – Q19

**19** Mrs. Taylor wants to pour 8 quarts of juice into 16 glasses. Each glass holds one pint. Does Mrs. Taylor have enough juice to fill 16 glasses?

**A** No, because there are 4 quarts in 1 gallon and $16 \div 4 = 4$

**B** No, because there are 4 quarts in 1 gallon and $4 \times 16 = 64$

**C** Yes, because there are 2 pints in 1 quart and $2 \times 8 = 16$

**D** Yes, because there are 2 pints in 1 quart and $8 \div 2 = 4$

**\* Correct answer (C)**

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
| --- | --- | --- |
| | Process | 5.1(G) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

#### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A | 11 | | ☐Guessing |
| B | 7 | | ☐Careless Error |
| C* | 74 | | ☐Stopped too Early |
| D | 7 | | ☐Mixed Up Concepts |

#### Implications for Instruction/Notes

lead4ward

| 5.7(A) (New) solve problems by calculating conversions within a measurement system, customary or metric | Analysis of Assessed Standards |
|---|---|

**5.10(C) (Old)** select and use appropriate units and formulas to measure length, perimeter, area, and volume

## 2013 – Q21

21  The diagram below models the bus route Sofia takes to get from her house to a shopping center. Use the ruler provided to measure Sofia's route to the nearest inch.

• Bus Stop X

• Sofia's House

Bus Stop R •

Bus Stop M

Shopping Center

• Bus Stop P

SCALE
2 inches represents 1 mile
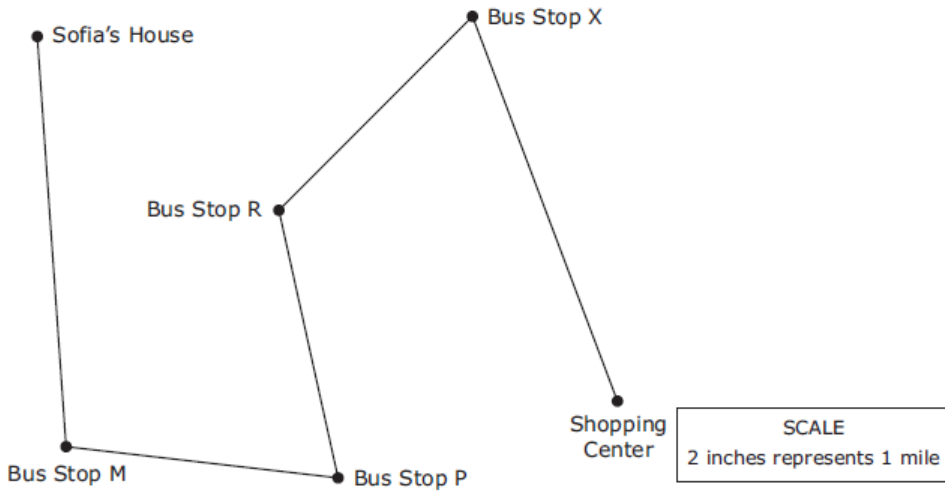
If 2 inches in the drawing represents 1 mile, which distance is closest to the length of the actual bus route Sofia takes to get from her house to the shopping center?

A  24 mi

B  6 mi

C  5 mi

D  12 mi

**\* Correct answer (B)**

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(C) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 6 | | ☐ Guessing |
| B* | 60 | | ☐ Careless Error |
| C | 17 | | ☐ Stopped too Early |
| D | 17 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**5.7(A) (New)** solve problems by calculating conversions within a measurement system, customary or metric

**6.8(D) (Old)** convert measures within the same measurement system (customary and metric) based on relationships between units

## 2013 – Q25

The measurements in the list below have a characteristic in common.

- 2 miles
- 72,000 inches
- 3,000 feet

Which statement describes the common characteristic?

A   Each measurement is less than 4,000 yards.

B   Each measurement is greater than 1,760 yards.

C   Each measurement is equivalent to 1,000 yards.

D   Each measurement is equivalent to 3,520 yards.

**\* Correct answer (A)**

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(E) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | 50 | | ☐Guessing |
| B | 32 | | ☐Careless Error |
| C | 9 | | ☐Stopped too Early |
| D | 10 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

---

**5.7(A) (New)** solve problems by calculating conversions within a measurement system, customary or metric

**5.10(A) (Old)** perform simple conversions within the same measurement system (SI (metric) or customary)

## 2013 – Q28

28  Oneesha swims a total of 13 kilometers each week. What is the total number of meters Oneesha swims in 3 weeks?

F   39 m

G   13,000 m

H   3,900 m

J   39,000 m

**\* Correct answer (J)**

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(B) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F | 26 | | ☐Guessing |
| G | 21 | | ☐Careless Error |
| H | 6 | | ☐Stopped too Early |
| J* | 47 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

| 5.7(A) (New) solve problems by calculating conversions within a measurement system, customary or metric | Analysis of Assessed Standards | | |
|---|---|---|---|
| 6.8(D) (Old) convert measures within the same measurement system (customary and metric) based on relationships between units | | | |

**2013 – Q42**

An adult human body contains about 10 pints of blood. How many fluid ounces is the equivalent of 10 pints?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(A) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| 160 | 58 | | ☐ Guessing |
| | 41 | | ☐ Careless Error |
| | 0 | | ☐ Stopped too Early |
| | 0 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (160)**

---

| IQ Analysis \| Investigating the Question | SE 5.8(A) | RC: 3 |
|---|---|---|
| **5.8(A)** describe the key attributes of the coordinate plane, including perpendicular number lines (axes) where the intersection (origin) of the two lines coincides with zero on each number line and the given point (0, 0); the *x*-coordinate, the first number in an ordered pair, indicates movement parallel to the *x*-axis starting at the origin; and the *y*-coordinate, the second number, indicates movement parallel to the *y*-axis starting at the origin | **Units:** | |

No test questions 2013 – 2015

**5.8(B)** | **Units:**

**5.8(B) (New)** describe the process for graphing ordered pairs of numbers in the first quadrant of the coordinate plane

**5.9(A) (Old)** locate and name points on a coordinate grid using ordered pairs of whole numbers

### Analysis of Assessed Standards

| Dual Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(C) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

## 2013 – Q26

**26** Line *m* is shown on the coordinate grid below.
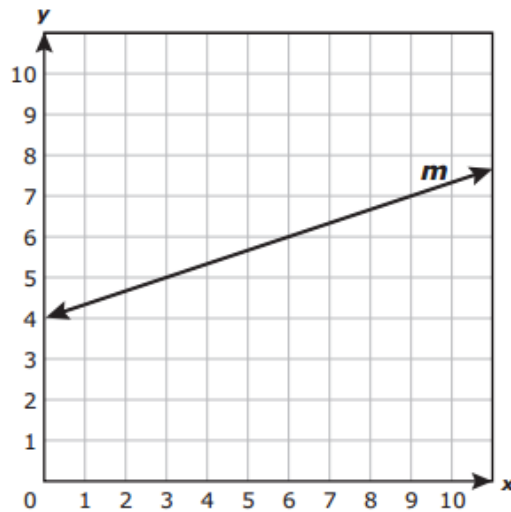


Which ordered pair represents a point that is located below line *m*?

**F** (3, 5)

**G** (10, 6)

**H** (2, 8)

**J** (4, 10)

**\* Correct answer (G)**

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| F | 19 | | ☐ Guessing |
| G* | 64 | | ☐ Careless Error |
| H | 2 | | ☐ Stopped too Early |
| J | 15 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

| 5.8(B) (New) describe the process for graphing ordered pairs of numbers in the first quadrant of the coordinate plane | Analysis of Assessed Standards |
|---|---|
| 5.9(A) (Old) locate and name points on a coordinate grid using ordered pairs of whole numbers | |

**2013 – Q5**

Billy will place point *W* at the coordinates (7, 6) on the coordinate grid below.
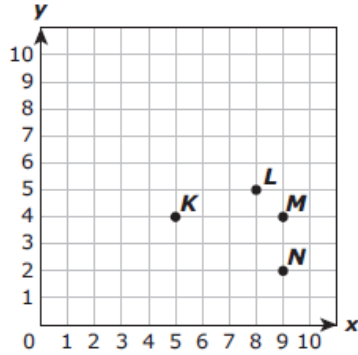


Billy will then circle the point that is 2 units right and 2 units down from (7, 6). Which point will Billy circle?

**A** Point *K*

**B** Point *L*

**C** Point *M*

**D** Point *N*

**\* Correct answer (C)**

| | | Analysis of Assessed Standards |
|---|---|---|
| **Dual Coding** | **Content** | Supporting |
| | **Process** | 5.1(C) |

| **Stimulus** | |
|---|---|
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 9 | | ☐ Guessing |
| B | 12 | | ☐ Careless Error |
| C* | 76 | | ☐ Stopped too Early |
| D | 3 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**5.8(C)** graph in the first quadrant of the coordinate plane ordered pairs of numbers arising from mathematical and real-world problems, including those generated by number patterns or found in an input-output table

## Analysis of Assessed Standards

2015 – Sample Q16

**16** The ordered pairs below represent three vertices of a trapezoid.

(2, 1),  (4, 4),  (4, 6)
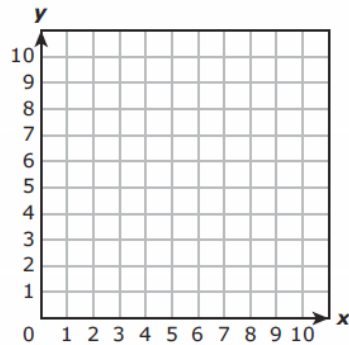


Which ordered pair could represent the location of the fourth vertex of this trapezoid?

**A** (4, 5)

**B** (10, 9)

**C** (2, 9)

**D** (4, 1)

**\* Correct answer (C)**

| Multi Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(B), 5.1(E), 5.1(F) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | | | ☐Guessing |
| B | NA | | ☐Careless Error |
| C* | | | ☐Stopped too Early |
| D | | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

| 5.8(C) (New) graph in the first quadrant of the coordinate plane ordered pairs of numbers arising from mathematical and real-world problems, including those generated by number patterns or found in an input-output table | Analysis of Assessed Standards | |
|---|---|---|

**5.13(A) (Old)** use tables of related number pairs to make line graphs

## 2014 – Q27

The table shows the number of pages that a printer can print using different numbers of ink cartridges.

### Printer

| Number of Ink Cartridges | Number of Pages |
|---|---|
| 1 | 700 |
| 2 | 1,400 |
| 4 | 2,800 |

Which graph represents the data in the table?
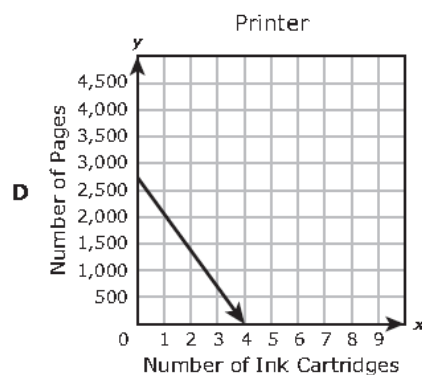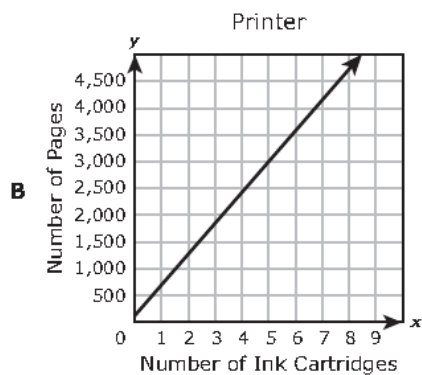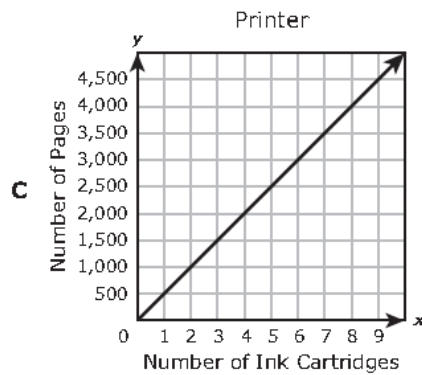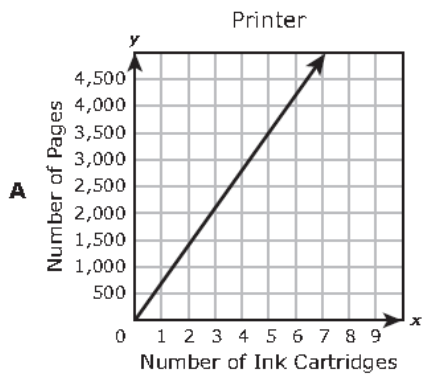
### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | 61 | | ☐ Guessing |
| B | 18 | | ☐ Careless Error |
| C | 10 | | ☐ Stopped too Early |
| D | 11 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**Printer**

A



**Printer**

C



**Printer**

B



**Printer**

D



\* **Correct answer (A)**

| **5.8(C) (New)** graph in the first quadrant of the coordinate plane ordered pairs of numbers arising from mathematical and real-world problems, including those generated by number patterns or found in an input-output table | **Analysis of Assessed Standards** | |
| --- | --- | --- |

**6.4(B) (Old)** use tables of data to generate formulas representing relationships involving perimeter, area, volume of a rectangular prism, etc.

## 2014 – Q47

The ordered pairs below represent the location of 4 stops on a bus route.

**Bus Route**

Stop K $(\frac{3}{4}, \frac{7}{4})$

Stop L $(\frac{4}{4}, \frac{8}{4})$

Stop M $(\frac{8}{4}, \frac{5}{4})$

Stop N $(\frac{7}{4}, \frac{3}{4})$
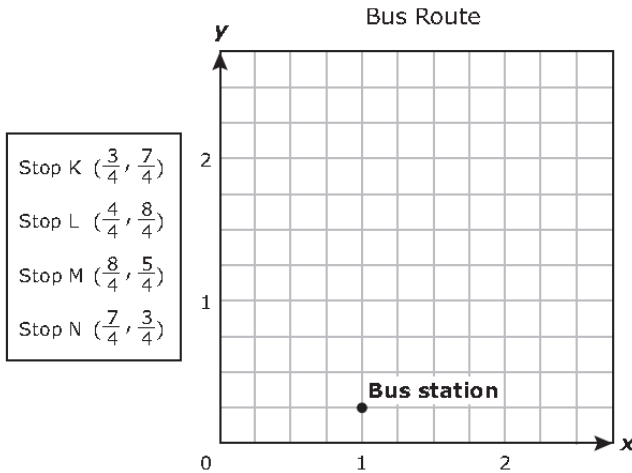
**Bus station**

The location of the bus station is shown on the coordinate grid. Which stop is closest to the bus station?

**A**  Stop K

**B**  Stop L

**C**  Stop M

**D**  Stop N

**\* Correct answer (D)**

| 5.8(C) (New) graph in the first quadrant of the coordinate plane ordered pairs of numbers arising from mathematical and real-world problems, including those generated by number patterns or found in an input-output table | Analysis of Assessed Standards |
|---|---|
| 6.7(A) (Old) locate and name points on a coordinate plane using ordered pairs of non-negative rational numbers | |

## 2013 – Q10

A polygon is shown on the coordinate grid.
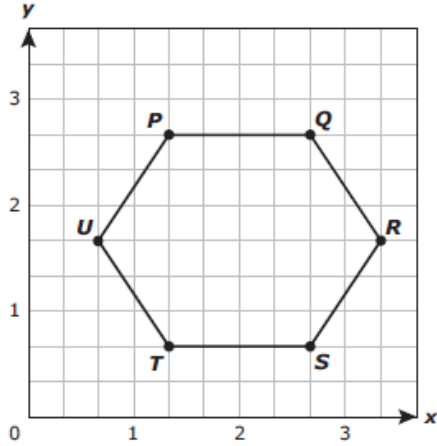


The list below shows ordered pairs representing the location of five vertices of the polygon.

$$\left(2\frac{2}{3}, \frac{2}{3}\right), \left(\frac{2}{3}, 1\frac{2}{3}\right), \left(1\frac{1}{3}, \frac{2}{3}\right), \left(1\frac{1}{3}, 2\frac{2}{3}\right), \left(3\frac{1}{3}, 1\frac{2}{3}\right)$$

Which vertex is NOT represented by an ordered pair in the list?

**F** Vertex P

**G** Vertex Q

**H** Vertex R

**J** Vertex S

**\* Correct answer (G)**

**5.8(C) (New)** graph in the first quadrant of the coordinate plane ordered pairs of numbers arising from mathematical and real-world problems, including those generated by number patterns or found in an input-output table

**6.7(A) (Old)** locate and name points on a coordinate plane using ordered pairs of non-negative rational numbers

## 2013 – Q29

Which ordered pair appears to be located 350 units to the right and 700 units up from point W?
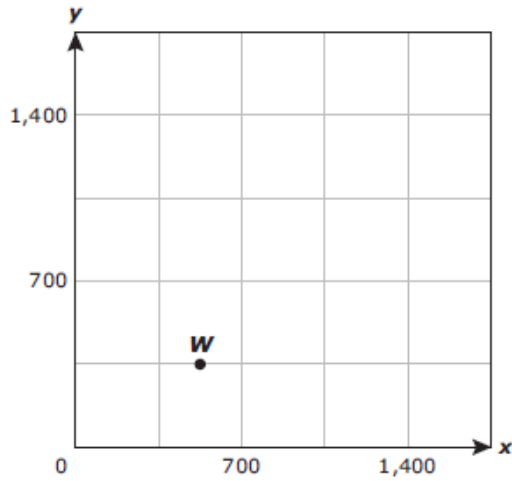


A (1,050, 875)

B (700, 1,050)

C (875, 1,050)

D (1,225, 700)

**\* Correct answer (C)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 6.1(C) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 16 | | ☐Guessing |
| B | 28 | | ☐Careless Error |
| C* | 44 | | ☐Stopped too Early |
| D | 11 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**5.9(A)** represent categorical data with bar graphs or frequency tables and numerical data, including data sets of measurements in fractions or decimals, with dot plots or stem-and-leaf plots

## 2015 – Sample Q17

**17** The thicknesses of the boards Dennis used for a construction project are listed below. These measurements are in inches.

$$\frac{1}{4}, \frac{3}{4}, \frac{1}{2}, \frac{3}{4}, \frac{1}{8}, 1, \frac{5}{8}, \frac{3}{4}, \frac{1}{2}$$

Which dot plot represents these measurements?



**\* Correct answer (D)**

### Analysis of Assessed Standards

| Multi Coding | Content | Supporting |
| --- | --- | --- |
| | Process | 5.1(A), 5.1(B), 5.1(D), 5.1(F) |

| Stimulus | |
| --- | --- |
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A | | | ☐Guessing |
| B | NA | | ☐Careless Error |
| C | | | ☐Stopped too Early |
| D* | | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

| **5.9(A) (New)** represent categorical data with bar graphs or frequency tables and numerical data, including data sets of measurements in fractions or decimals, with dot plots or stem-and-leaf plots | Analysis of Assessed Standards |
|---|---|

**4.13(B) (Old)** interpret bar graphs

## 2014 – Q25

The graph below shows the numbers of 4th-grade and 5th-grade students who participated in different Earth Day activities at a school. Each student participated in only one activity.

**Earth Day Activities**

Based on the graph, which statement is true?

**A** There were 12 more 4th-grade students than 5th-grade students who participated in Earth Day activities.

**B** A total of 84 of these students sorted recycling.

**C** There were 24 more 4th-grade and 5th-grade students who planted trees than who made banners.

**D** A total of 36 students participated in Earth Day activities.

**\* Correct answer (A)**

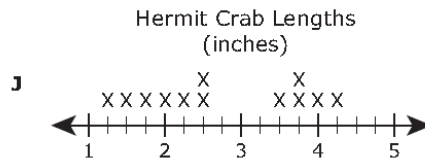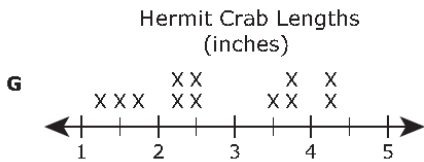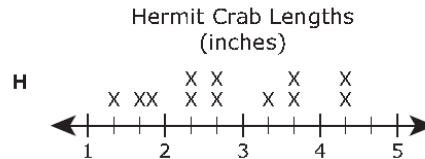| **5.9(A) (New)** represent categorical data with bar graphs or frequency tables and numerical data, including data sets of measurements in fractions or decimals, with dot plots or stem-and-leaf plots | Analysis of Assessed Standards |
|---|---|
| **6.10(A) (Old)** select and use an appropriate representation for presenting and displaying different graphical representations of the same data including line plot, line graph, bar graph, and stem and leaf plot | |

## 2014 – Q38

The stem and leaf plot shows the length of several hermit crabs.

Hermit Crab Lengths
(inches)

| Stem | Leaf |
|---|---|
| 1 | 25 50 75 |
| 2 | 25 25 50 50 |
| 3 | 50 75 75 |
| 4 | 25 25 |

KEY
2|25 = 2.25 inches

Which line plot best represents the data in the stem and leaf plot?

Hermit Crab Lengths
(inches)

**F**   X X X   X X      X X   X
         1      2      3      4      5

Hermit Crab Lengths
(inches)

**H**              X X         X      X
         X  XX   X X    X X    X
         1      2      3      4      5

Hermit Crab Lengths
(inches)

**G**        X X         X    X
       X X X   X X     X X   X
       1      2      3      4      5

Hermit Crab Lengths
(inches)

**J**              X            X
         X X X X X X   X X X X
         1      2      3      4      5

**\* Correct answer (G)**

| | Content | Readiness |
|---|---|---|
| **Dual Coding** | Process | 4.1(D) |

| **Stimulus** | |
|---|---|
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

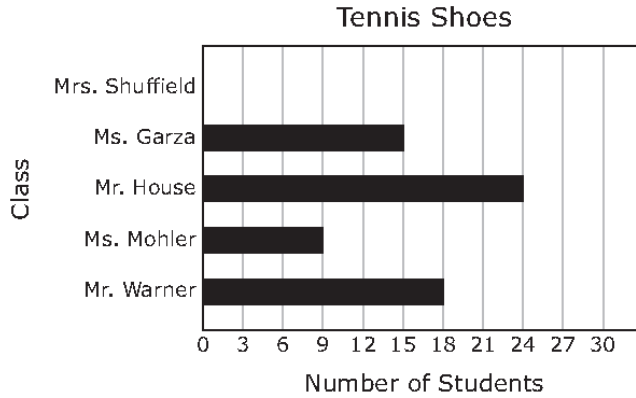| Item | State | Local | **Error Analysis** |
|---|---|---|---|
| F | 4 | | ☐Guessing |
| G* | 66 | | ☐Careless Error |
| H | 20 | | ☐Stopped too Early |
| J | 9 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

| **5.9(A) (New)** represent categorical data with bar graphs or frequency tables and numerical data, including data sets of measurements in fractions or decimals, with dot plots or stem-and-leaf plots | Analysis of Assessed Standards |
| --- | --- |

**4.13(B) (Old)** interpret bar graphs

## 2014 – Q42

The graph below shows the number of students in four classes who wore tennis shoes on Friday. The data for Mrs. Shuffield's class is missing.

**Tennis Shoes**

Class / Number of Students bar graph:
- Mrs. Shuffield: (missing)
- Ms. Garza: 15
- Mr. House: 24
- Ms. Mohler: 9
- Mr. Warner: 18

(x-axis: 0 3 6 9 12 15 18 21 24 27 30 — Number of Students)

A total of 87 students wore tennis shoes on Friday. How many students in Mrs. Shuffield's class wore tennis shoes?

**F** 66

**G** 21

**H** 153

**J** 108

**\* Correct answer (G)**

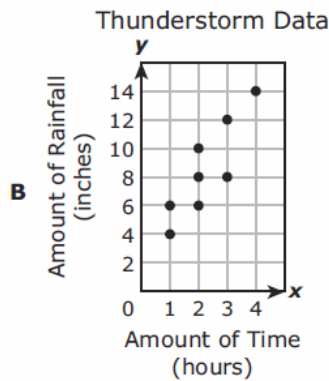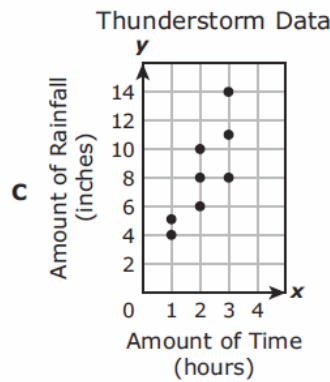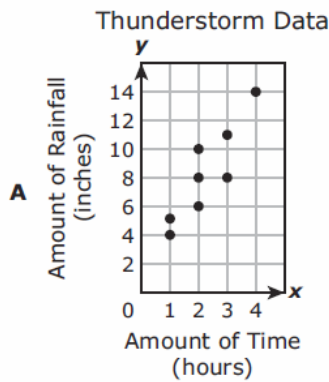**5.9(B)** represent discrete paired data on a scatterplot

## 2015 – Sample Q18

**18** The table shows the amount of time eight thunderstorms lasted and the amount of rainfall each thunderstorm produced.

**Thunderstorm Data**

| Amount of Time, x (hours) | 1 | 2 | 3 | 2 | 1 | 4 | 3 | 2 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Amount of Rainfall, y (inches) | 5 | 8 | 11 | 6 | 4 | 14 | 8 | 10 |

Which scatterplot best represents the data?



### Analysis of Assessed Standards

| Multi Coding | Content | Supporting |
| --- | --- | --- |
| | Process | 5.1(A), 5.1(B), 5.1(D), 5.1(F) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A* | | | ☐ Guessing |
| B | NA | | ☐ Careless Error |
| C | | | ☐ Stopped too Early |
| D | | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (A)**

**5.9(C)** | Units:

| | |
|---|---|

**5.9(C)** solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot

## 2015 – Sample Q19

**19** The frequency table shows the colors that fifth graders preferred for their school shirts.

### Fifth-Grade Shirts

| Color | Tally | Frequency |
|---|---|---|
| Red | ЖЖЖЖ ЖЖII | 32 |
| Blue | ЖЖЖЖ ЖЖЖ | 35 |
| Green | ЖЖЖЖ IIII | 24 |
| Orange | ЖЖЖIII | 18 |
| Purple | ЖЖЖЖ ЖЖЖIII | 38 |

Based on the data in the table, how many students preferred the three colors that had the highest frequencies?

**A** 38

**B** 91

**C** 147

**D** 105

**\* Correct answer (D)**

### Analysis of Assessed Standards

| Multi Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(A), 5.1(B), 5.1(E), 5.1(F) |

| | |
|---|---|
| **Stimulus** | |
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | | | ☐ Guessing |
| B | NA | | ☐ Careless Error |
| C | | | ☐ Stopped too Early |
| D* | | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

| 5.9(C) (New) solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot |
|---|
| 6.10(D) (Old) solve problems by collecting, organizing, displaying, and interpreting data |

## 2014 – Q7

The graph shows the number of hours that four businesses were open on Friday.



Hours Open
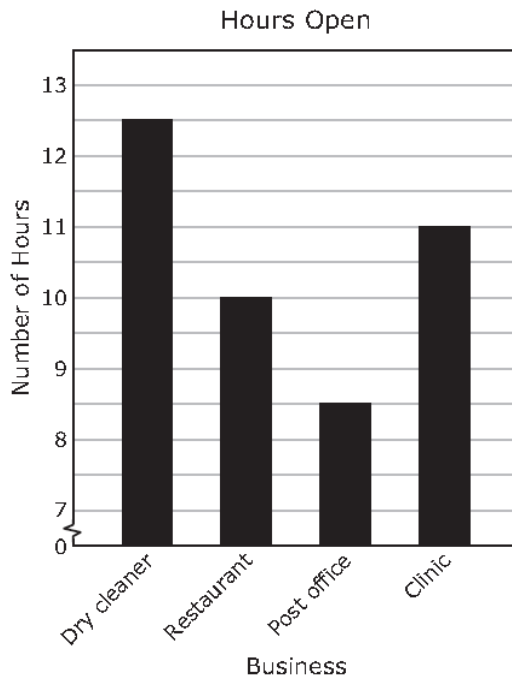
Based on the information in the graph, which statement could be true?

A   The dry cleaner opened at 6:15 A.M. and closed at 6:15 P.M.

B   The restaurant opened at 11:45 A.M. and closed at 9:30 P.M.

C   The post office opened at 9:00 A.M. and closed at 6:00 P.M.

D   The clinic opened at 7:30 A.M. and closed at 6:30 P.M.

**\* Correct answer (D)**

| 5.9(C) (New) solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot | Analysis of Assessed Standards |
|---|---|
| **4.13(B) (Old)** interpret bar graphs | |

## 2014 – Q9

Evan tries to burn 500 calories each time he exercises. The graph below shows the number of minutes that each type of exercise must be done in order to burn 500 calories.

### Exercising
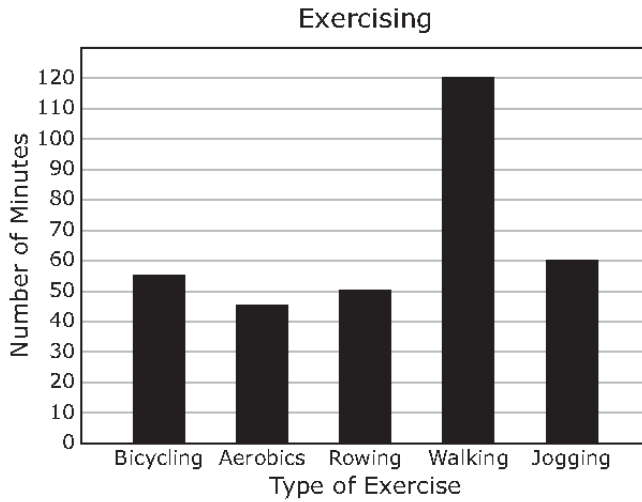


Based on the graph, how many more minutes of walking than aerobics must Evan do in order to burn 500 calories?

**A**  75 min, because $120 - 45 = 75$

**B**  165 min, because $120 + 45 = 165$

**C**  80 min, because $120 - 40 = 80$

**D**  170 min, because $120 + 50 = 170$

**\* Correct answer (A)**

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(G) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

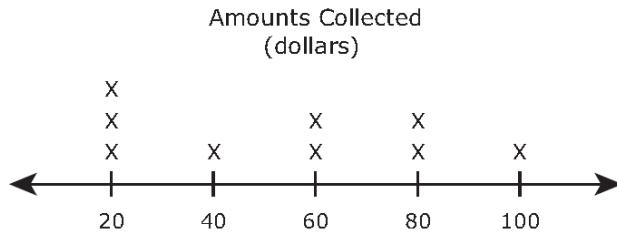| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | 73 | | ☐Guessing |
| B | 12 | | ☐Careless Error |
| C | 7 | | ☐Stopped too Early |
| D | 8 | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

## 5.9(C) (New) solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot
## 6.10(D) (Old) solve problems by collecting, organizing, displaying, and interpreting data

### 2014 – Q16

The 10 members of an art club collected a total of $520 during a fund-raiser. The amounts collected by 9 of the members are represented on the line plot below.

**Amounts Collected (dollars)**

```
      X
      X           X        X
      X    X      X    X        X
    ──┼────┼──────┼────┼────┼────►
      20   40     60   80   100
```

How many dollars were collected by the tenth member of the art club?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

**\* Correct answer (40)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(D) |

| Stimulus | |
|---|---|
| **Thinking** | |
| **Related SEs** | |

#### Data Analysis

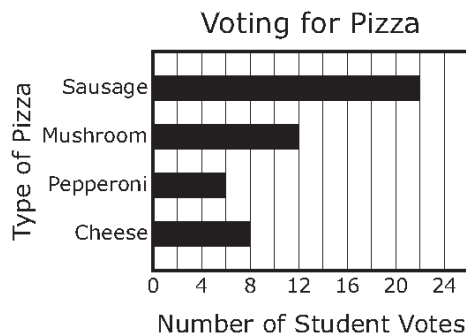| Item | State | Local | Error Analysis |
|---|---|---|---|
| | 51 | | ☐ Guessing |
| 40 | 49 | | ☐ Careless Error |
| | 0 | | ☐ Stopped too Early |
| | 0 | | ☐ Mixed Up Concepts |

#### Implications for Instruction/Notes

---

## 5.9(C) (New) solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot
## 6.10(D) (Old) solve problems by collecting, organizing, displaying, and interpreting data

### 2014 – Q33

The graph below shows the number of students in a math club who voted for each of four types of pizza.

**Voting for Pizza**

Type of Pizza (Sausage, Mushroom, Pepperoni, Cheese) vs. Number of Student Votes (0, 4, 8, 12, 16, 20, 24)

Which statement is best supported by the graph?

**A** The number of students who voted for mushroom pizza is 2 times the number of students who voted for sausage pizza.

**B** The number of students who voted for sausage pizza is 13 more than the number of students who voted for cheese pizza.

**C** The number of students who voted for pepperoni pizza is 6 fewer than the number of students who voted for mushroom pizza.

**D** The number of students who voted for cheese pizza is 1 more than the number of students who voted for pepperoni pizza.

**\* Correct answer (C)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | |

| Stimulus | |
|---|---|
| **Thinking** | |
| **Related SEs** | |

#### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 5 | | ☐ Guessing |
| B | 10 | | ☐ Careless Error |
| C* | 73 | | ☐ Stopped too Early |
| D | 11 | | ☐ Mixed Up Concepts |

#### Implications for Instruction/Notes

**5.9(C) (New)** solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot

**7.11(B) (Old)** make inferences and convincing arguments based on an analysis of given or collected data

## 2013 – Q6

The table below shows the number of minutes Melissa ran each day during three weeks when she was training for a race.

### Melissa's Training Plan

|        | Sun. | Mon. | Tue. | Wed. | Thu. | Fri. | Sat. |
|--------|------|------|------|------|------|------|------|
| Week 1 | 10   | 10   | 10   | 12   | 12   | 0    | 15   |
| Week 2 | 15   | 18   | 8    | 18   | 20   | 0    | 20   |
| Week 3 | 22   | 22   | 20   | 24   | 24   | 0    | 26   |

Which statement is best supported by the data in the table?

F   The total number of minutes Melissa ran in Week 3 is twice the total number of minutes she ran in Week 1.

G   The total number of minutes Melissa ran each day decreased from Week 1 to Week 2.

H   The total number of minutes Melissa ran in Week 3 is more than the total number of minutes she ran in Weeks 1 and 2 combined.

J   The total number of minutes Melissa ran each week increased by about 5 minutes per week.

**\* Correct answer (F)**

**5.9(C) (New)** solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot

**7.11(B) (Old)** make inferences and convincing arguments based on an analysis of given or collected data

## 2013 – Q27

The number of points scored by Lillian and Naomi during four basketball games is shown in the graph below.

**Scoring Results**
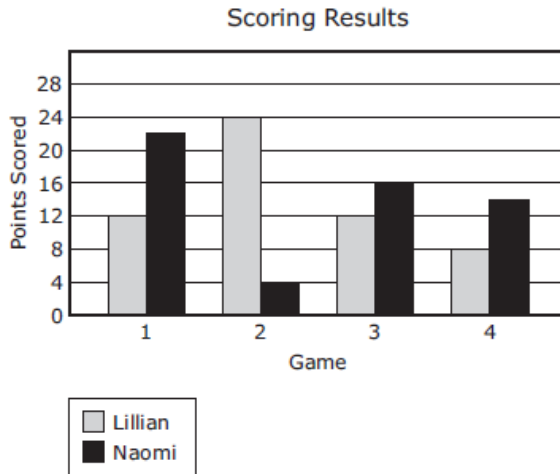


Which statement is best supported by the information in the graph?

**A** In Game 1 the number of points scored by Lillian was more than half the number of points scored by Naomi.

**B** The total number of points scored by Lillian and Naomi in Game 4 was more than the number of points scored by Lillian in Game 2.

**C** In Game 4 the number of points scored by Naomi was two times the number of points scored by Lillian.

**D** The total number of points scored by Lillian and Naomi in Game 3 was seven times the number of points scored by Lillian in Game 2.

**\* Correct answer (A)**

### Analysis of Assessed Standards

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 5.1(G) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A* | 40 | | ☐ Guessing |
| B | 16 | | ☐ Careless Error |
| C | 24 | | ☐ Stopped too Early |
| D | 19 | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

| 5.9(C) (New) solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot | Analysis of Assessed Standards | | |
|---|---|---|---|
| 6.10(D) (Old) solve problems by collecting, organizing, displaying, and interpreting data | | | |

**Analysis of Assessed Standards**

| Dual Coding | Content | Readiness |
|---|---|---|
| | Process | 6.1(E) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

**Data Analysis**

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | 10 | | ☐ Guessing |
| B* | 62 | | ☐ Careless Error |
| C | 11 | | ☐ Stopped too Early |
| D | 17 | | ☐ Mixed Up Concepts |

**Implications for Instruction/Notes**

2013 – Q39

**39** The graph below shows the number of garbage cans that were emptied in five neighborhoods.



Garbage Cans Emptied
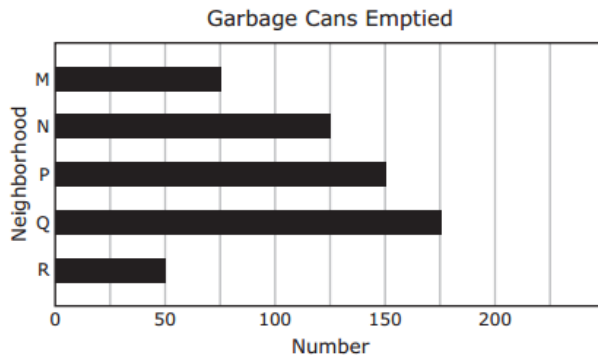
Which statement is best supported by the information in the graph?

**A** A total of 500 garbage cans were emptied in these 5 neighborhoods.

**B** The combined number of garbage cans emptied in Neighborhood M and Neighborhood N is 50 more than the number of garbage cans emptied in Neighborhood P.

**C** The difference between the greatest number of garbage cans emptied and the least number of garbage cans emptied is 110.

**D** The combined number of garbage cans emptied in Neighborhood P and Neighborhood Q is 375 more than the number of garbage cans emptied in Neighborhood R.

**\* Correct answer (B)**

**5.10(A) define income tax, payroll tax, sales tax, and property tax**

## 2015 – Sample Q20

20  Ms. Parvin pays a tax every year because she owns a house. Which term best describes this tax?

A  Income tax

B  Payroll tax

C  Sales tax

D  Property tax

### Analysis of Assessed Standards

| Multi Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(A), 5.1(F) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | | | ☐Guessing |
| B | NA | | ☐Careless Error |
| C | | | ☐Stopped too Early |
| D* | | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (D)**

---

**5.10(B) explain the difference between gross income and net income**

## 2015 – Sample Q21

21  Which of these statements about gross income and net income is true?

A  Gross income is a tax on all income that a worker earns, and net income is a tax paid by an employer based on a worker's wages.

B  Gross income is a tax paid by an employer based on a worker's wages, and net income is a tax on all income that a person earns.

C  Gross income is the amount an employee is paid after deductions and taxes, and net income is the total amount an employee earns before deductions are applied.

D  Gross income is the total amount an employee earns before deductions are applied, and net income is the amount an employee is paid after deductions and taxes.

### Analysis of Assessed Standards

| Multi Coding | Content | Supporting |
|---|---|---|
| | Process | 5.1(G) |

| Stimulus | |
|---|---|
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | | | ☐Guessing |
| B | NA | | ☐Careless Error |
| C | | | ☐Stopped too Early |
| D* | | | ☐Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (D)**

**5.10(E)** describe actions that might be taken to balance a budget when expenses exceed income

## 2015 – Sample Q22

**22** This month Mando's expenses are greater than his income. What are two actions Mando can take in order to balance his budget?

**A**  Increase expenses and decrease income

**B**  Decrease expenses and decrease income

**C**  Decrease expenses and increase income

**D**  Increase expenses and increase income

### Analysis of Assessed Standards

| **Multi Coding** | **Content** | Supporting |
|---|---|---|
| | **Process** | 5.1(A), 5.1(B), 5.1(G) |

| **Stimulus** | |
|---|---|
| **Thinking** | |
| **Related SEs** | |

### Data Analysis

| Item | State | Local | Error Analysis |
|---|---|---|---|
| A | | | ☐ Guessing |
| B | NA | | ☐ Careless Error |
| C* | | | ☐ Stopped too Early |
| D | | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

**\* Correct answer (C)**

lead4ward

## 5.10(F) balance a simple budget

### 2015 – Sample Q23

**23** Ms. Vonn's monthly budget is shown in the chart. She receives two paychecks per month.

**Ms. Vonn's Budget**

| Income | Expenses |
| --- | --- |
| Work paycheck ......... $1,200 | House payment ........... $900 |
| Work paycheck ........ $1,200 | Car payment ............... |
| | Utilities ....................... $350 |
| | Groceries .................... $250 |
| | Gas ........................... $200 |
| | Insurance .................. $150 |
| | Retirement savings ...... $250 |

Ms. Vonn's budget is balanced every month. How much is Ms. Vonn's monthly car payment?

**A** $2,400

**B** $300

**C** $500

**D** $2,100

**\* Correct answer (B)**

### Analysis of Assessed Standards

| Multi Coding | Content | Supporting |
| --- | --- | --- |
| | Process | 5.1(A), 5.1(B), 5.1(E), 5.1(F) |

| Stimulus | |
| --- | --- |
| Thinking | |
| Related SEs | |

### Data Analysis

| Item | State | Local | Error Analysis |
| --- | --- | --- | --- |
| A | | | ☐ Guessing |
| B* | NA | | ☐ Careless Error |
| C | | | ☐ Stopped too Early |
| D | | | ☐ Mixed Up Concepts |

### Implications for Instruction/Notes

| | SE | RC: |
|---|---|---|

**Units:**

---

**Analysis of Assessed Standards**

| Dual Coding | Content | |
|---|---|---|
| | Process | |
| PLC for PLC Analysis | Stimulus | |
| | Thinking | |
| Related SEs | | |

**Data Analysis**

| SE Level Data | | State | Local |
|---|---|---|---|
| | | | |

| Item | State | Local | Error Type |
|---|---|---|---|
| A/F | | | ☐ Procedural |
| B/G | | | ☐ Application |
| C/H | | | ☐ Conceptual |
| D/J | | | ☐ Guessing |

**Instructional Analysis**

| Evidence of Transfer | ☐ Similar to examples (taught) ☐ Requires application (learned) |
|---|---|
| Depth of Knowledge | ☐ Level 1  ☐ Level 3 ☐ Level 2  ☐ Level 4 |
| Concept | |

* **Correct answer**

---

**Analysis of Assessed Standards**

| Dual Coding | Content | |
|---|---|---|
| | Process | |
| PLC for PLC Analysis | Stimulus | |
| | Thinking | |
| Related SEs | | |

**Data Analysis**

| SE Level Data | | State | Local |
|---|---|---|---|
| | | | |

| Item | State | Local | Error Type |
|---|---|---|---|
| A/F | | | ☐ Procedural |
| B/G | | | ☐ Application |
| C/H | | | ☐ Conceptual |
| D/J | | | ☐ Guessing |

**Instructional Analysis**

| Evidence of Transfer | ☐ Similar to examples (taught) ☐ Requires application (learned) |
|---|---|
| Depth of Knowledge | ☐ Level 1  ☐ Level 3 ☐ Level 2  ☐ Level 4 |
| Concept | |

* **Correct answer**

---

**Analysis of Assessed Standards**

| So What? | |
|---|---|
| Now What? | |