Grade 5 Standards

Operations and Algebraic Thinking
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Operations and Algebraic Thinking
5.OA.A.01
Items 1 – 13

ITEM 1

What is the value of this expression? $(\mathbf{80} - \mathbf{45}) \div (\mathbf{5} + \mathbf{2})$

A. 5

B. 9

C. 28

D. 42

ITEM 2

What is the value of this expression? $\mathbf{25} - [\mathbf{2} \times (\mathbf{18} \div \mathbf{3}) + \mathbf{2}]$

A. 9

B. 11

C. 140

D. 184

ITEM 3

What is the value of this expression? $\mathbf{4} \times (\mathbf{6} - \mathbf{5} + \mathbf{1})$

A. 0

B. 5

C. 8

D. 20

ITEM 4

What is the value of this expression? $(\mathbf{12} \div \mathbf{3}) \times (\mathbf{4} + \mathbf{12})$

A. 64

B. 13

C. 0.5

D. 0.25

ITEM 5

What is the value of this expression? $[\mathbf{6} \times (\mathbf{10} + \mathbf{2})] - \mathbf{5}$

A. 18

B. 42

C. 57

D. 67

ITEM 6

What is the value of this expression? $\mathbf{7} + [\mathbf{3} \times (\mathbf{10} - \mathbf{6})]$

A. 19

B. 31

C. 40

D. 96

ITEM 7

What is the value of this expression? $[\mathbf{5} + (\mathbf{6} \times \mathbf{4})] \times \mathbf{4}$

A. 60

B. 104

C. 116

D. 176

ITEM 8

The following equation is false: $\mathbf{19 - 4 + 6 \div 2 = 14}$

Inserting parentheses into the equation can make the equation **true**. Select the answer that has parentheses inserted so that the equation is **true**.

A. $\mathbf{(19 - 4) + 6 \div 2 = 14}$

B. $\mathbf{19 - (4 + 6) \div 2 = 14}$

C. $\mathbf{19 - 4 + (6 \div 2) = 14}$

D. $\mathbf{(19 - 4 + 6) \div 2 = 14}$

ITEM 9

Evaluate the following expression: $\mathbf{24} \div [\mathbf{4} + (\mathbf{9} - \mathbf{7})] \times \mathbf{2}$

A. 1

B. 2

C. 8

D. 16

ITEM 10

Evaluate the following expression: $\mathbf{8} - \left(\frac{\mathbf{1}}{\mathbf{4}} + \frac{\mathbf{1}}{\mathbf{2}}\right) + \mathbf{5}$

A. $2\frac{1}{4}$

B. $12\frac{1}{4}$

C. $13\frac{1}{4}$

D. $14\frac{1}{4}$

ITEM 11

Evaluate the following expression: $(\mathbf{1.5} + \mathbf{3.75}) - \mathbf{2} \times \mathbf{2} + (\mathbf{6.75} - \mathbf{6})$

A. 2

B. 7.25

C. 8.94

D. 0.5

ITEM 12

What is the value of this expression? $\mathbf{63} \div [\mathbf{7} + (\mathbf{16} - \mathbf{6}) \div \mathbf{5}]$

Enter the correct number in the blank.

___7____

ITEM 13

What is the value of this expression? $[(\mathbf{7}+\mathbf{2})\times\mathbf{6}+\mathbf{4}]-\mathbf{46}\div\mathbf{2}$

A. 6

B. 22

C. 35

D. 67

Operations and Algebraic Thinking
5.OA.A.02
Items 14 – 21

ITEM 14

Sammy collects rare coins. He started with 20 coins, and his parents gave him 15 more coins. Sammy is going to put his coins in an album. Each page in the album holds 5 coins. Which expression could be used to find the number of album pages Sammy will completely fill if he uses all of his coins?

A. $20 + 15 \div 5$

B. $20 + 15 - 5$

C. $(20 + 15) \div 5$

D. $(20 + 15) \times 5$

ITEM 15

Javier has $5. He sells a video game on an online auction site for $100. He must pay a $16 fee to the auction site. Javier then splits the money he made from the auction equally with his two brothers. Which expression represents the amount of money Javier has now?

A. $100 – 16 \div 3 + 5$

B. $(100 – 16) \div 3 + 5$

C. $100 – 16 \div (3 + 5)$

D. $(100 – 16) \div (3 + 5)$

ITEM 16

Jay's Hardware Store makes tool kits with 4 different screwdrivers and 6 different wrenches. Jay sells 24 of these tool kits. Which expression represents the number of screwdrivers and wrenches the store used for the tool kits Jay sold?

A. $4 + 6 \times 24$

B. $24 \times 4 + 6$

C. $24 \times (4 + 6)$

D. $4 + (6 \times 24)$

ITEM 17

Which expression represents the statement, “the sum of 19 and 12 multiplied by 5”?

A. $19 + 12 \times 5$

B. $(19 + 12) \times 5$

C. $19 - 12 \times 5$

D. $(19 - 12) \times 5$

ITEM 18

Which of the following is a correct comparison of Expressions 1 and 2?

- Expression 1: **5 × (7,483 – 2,694)**
- Expression 2: **7,483 – 2,694**

A. Expression 1 and Expression 2 are equivalent.

B. Expression 1 is 4,789 more than Expression 2.

C. Expression 1 is five times as large as Expression 2.

D. Expression 2 is five times as large as Expression 1.

ITEM 19

Which expression matches the statement, "the product of 5 and 3 subtracted from 25"?

A. $25 – (5 \times 3)$

B. $(5 \times 3) – 25$

C. $25 – (5 + 3)$

D. $(5 + 3) – 25$

ITEM 20

Select the following expression that represents the calculation "add 3 and 7, then multiply by the difference of 9 and 4."

A. $(3 + 7) \times (9 - 4)$

B. $3 + 7 \times (9 - 4)$

C. $3 + 7 \times 9 - 4$

D. $(3 + 7) \times 9 - 4$

ITEM 21

Which expression matches the statement "subtract 9 from 16 then multiply by 4."

A. $9 - 16 \times 4$

B. $16 - 9 \times 4$

C. $(16 - 9) \times 4$

D. $16 \times 4 - 9$

Operations and Algebraic Thinking
5.OA.B.03
Items 22 – 25

ITEM 22

Consider the two rules below for creating numerical patterns:

- Rule 1: start at zero and add 3 to make the next term.
- Rule 2: start at 1 and add 2 to make the next term

Which ordered pair could be created using corresponding terms from the two patterns?

A. (0, 3)

B. (1, 2)

C. (3, 2)

D. (3, 3)

ITEM 23

Which sentence about the corresponding terms in both Pattern A and Pattern B is always **true**?

- Pattern A: 0, 4, 8, 12, 16, 20, 24
- Pattern B: 0, 8, 16, 24, 32, 40, 48

A. Each term in Pattern A is 4 less than the corresponding term in Pattern B.

B. Each term in Pattern A is 2 times the corresponding term in Pattern B.

C. Each term in Pattern A is 0.5 times the corresponding term in Pattern B.

D. Each term in Pattern A is 8 less than the corresponding term in Pattern B.

ITEM 24

Which set of ordered pairs can be created by using corresponding terms from the two patterns generated by the given rules?

- Rule 1: starting at 0, add 4
- Rule 2: starting at 0, add 8

A. (0, 0) (4, 8) (8, 16) (12, 24) (16, 32)

B. (0, 0) (4, 8) (8, 16) (16, 32) (32, 64)

C. (0, 0) (4, 8) (8, 12) (12, 16) (12, 20)

D. (0, 0) (4, 8) (12, 16) (20, 24) (28, 32)

ITEM 25

Using the patterns below, what is the ordered pair created by the 8th corresponding terms from each pattern?

- Pattern A: 0, 4, 8, 12, 16, ...
- Pattern B: 0, 8, 16, 24, 32, ...

A. (40, 56)

B. (28, 44)

C. (32, 64)

D. (28, 56)

Number and Operations in Base Ten
5.NBT.A.01
Items 26 – 34

ITEM 26

The value of the 5 in 25.694 is _____times the value of the 5 in 18.56.

A. $\frac{1}{100}$

B. $\frac{1}{10}$

C. 10

D. 100

ITEM 27

Which statement is **true**?

A. The value of the 7 in 17,265 is 20 times the value of the 7 in 26,173.

B. The value of the 7 in 17,265 is $\frac{1}{20}$ times the value of the 7 in 26,173.

C. The value of the 7 in 17,265 is 100 times the value of the 7 in 26,173.

D. The value of the 7 in 17,265 is $\frac{1}{100}$ times the value of the 7 in 26,173.

ITEM 28

Which statement correctly compares two values?

A. The value of the 9 in 39,724 is $\frac{1}{10}$ times the value of the 9 in 91,845.

B. The value of the 9 in 39,724 is 10 times the value of the 9 in 91,845.

C. The value of the 9 in 39,724 is 100 times the value of the 9 in 91,845.

D. The value of the 9 in 39,724 is $\frac{1}{100}$ times the value of the 9 in 91,845.

ITEM 29

In which of the numbers below does the digit 7 represent $\frac{1}{10}$ times as much as the digit 7 in 184,721?

A. 937,610

B. 769,812

C. 513,970

D. 385,137

ITEM 30

Which statement is **true**?

A. The value of 3 in 0.037 is 10 times the value of 3 in 0.37.

B. The value of 3 in 0.37 is 100 times the value of 3 in 3.7.

C. The value of 3 in 3.7 is $\frac{1}{10}$ times the value of 3 in 37.

D. The value of 3 in 37 is $\frac{1}{100}$ times the value of 3 in 370.

ITEM 31

Which sentence correctly compares two values?

A. The value of 2 in 0.23 is $\frac{1}{10}$ times the value of 2 in 0.023.

B. The value of 2 in 2.3 is $\frac{1}{100}$ times the value of 2 in 230.

C. The value of 2 in 23 is 1,000 times the value of 2 in 2.3.

D. The value of 2 in 230 is 100 times the value of 2 in 23.

ITEM 32

Identify the number that is $\frac{1}{10}$ times the value of 600.

A. 6,000

B. 60

C. 6

D. 0.6

ITEM 33

What is the relationship between the values of the 9s in the number 493,916?

A. The value of the 9 in the ten thousands place is 10,000 times the 9 in the hundreds place.

B. The value of the 9 in the ten thousands place is 100 times the 9 in the hundreds place.

C. The value of the 9 in the hundreds place is 100 times the 9 in the ten thousands place.

D. The value of the 9 in the hundreds place 1/10 times the 9 in the ten thousands place.

ITEM 34

In which of the numbers below does the digit 6 represent ten times as much as the digit 6 in 576,130?

A. 891,469

B. 630,273

C. 165,452

D. 123,626

Number and Operations in Base Ten
5.NBT.A.02
Items 35 – 43

ITEM 35

Choose the factor to make the number sentence **true**.

0.43 × _____ = 43

A. 10^1

B. 10^2

C. 10^3

D. 10^4

ITEM 36

Which expression will result in a product greater than 4,521?

A. $4.521 \times 1{,}000$

B. 45.21×10

C. 452.1×100

D. 4.521×100

ITEM 37

Which expression is equivalent to 10^4?

A. 10 × 4

B. 10 + 10 + 10 + 10

C. 10 × 10 × 10 × 10

D. 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4

ITEM 38

Which expression is equivalent to 10^3?

A. 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3

B. 10 × 3

C. 10 + 10 + 10

D. 10 × 10 × 10

ITEM 39

Cory enters the number 1,359 in her calculator, then uses one calculation and gets a result of 13.59. What calculation did Cory use?

A. divide by 10

B. multiply by 10

C. divide by 100

D. multiply by 100

ITEM 40

What is the value of this expression?

750 ÷ 100

A. 75,000

B. 750

C. 75

D. 7.5

ITEM 41

Jenna multiplied 0.00345 by a number. The result was 34.5. By what number did Jenna multiply?

A. 1,000

B. 10,000

C. 100,000

D. 1,000,000

ITEM 42

The number 300,000 can be written as 3×10^n, where n is a whole number. What is the value of n?

Enter the correct number in the blank.

___5___

ITEM 43

Select three expressions that are equivalent to the expression, 47×10^3.

A. $47{,}000$

B. $470{,}000$

C. $47 \times 10 \times 10 \times 10$

D. $470 \times 10 \times 10 \times 10$

E. 470×10^2

Number and Operations in Base Ten
5.NBT.A.03a
Items 44 - 53

ITEM 44

Which decimal is one hundred thirty-two thousandths?

A. 0.0132

B. 0.1032

C. 0.132

D. 132.001

ITEM 45

What decimal equals seven hundred forty-six thousandths?

A. 0.0746

B. 0.746

C. 7,400.6

D. 7,400.006

ITEM 46

The expanded form of a number is shown below.

$$(\mathbf{9} \times \mathbf{1}) + \left(\mathbf{1} \times \frac{\mathbf{1}}{\mathbf{10}}\right) + \left(\mathbf{6} \times \frac{\mathbf{1}}{\mathbf{100}}\right) + (\mathbf{3} \times \frac{\mathbf{1}}{\mathbf{1000}})$$

What is the number written in standard form?

A. 91.63

B. 9.163

C. 9.106003

D. 9.0163

ITEM 47

The expanded form of a number is shown below.

$$(\mathbf{1} \times \mathbf{100}) + (\mathbf{7} \times \mathbf{1}) + \left(\mathbf{8} \times \frac{\mathbf{1}}{\mathbf{10}}\right) + (\mathbf{2} \times \frac{\mathbf{1}}{\mathbf{1000}})$$

What is the number written in standard form?

A. 107.802

B. 107.82

C. 170.802

D. 170.82

ITEM 48

How do you write 745.128 in word form?

A. Seven hundred and forty-five and one hundred twenty-eight

B. Seven hundred forty-five and one hundred twenty-eight hundredths

C. Seven hundred forty-five and one hundred twenty-eight thousandths

D. Seven hundred and forty-five and one hundred twenty-eight hundredths

ITEM 49

Select **three** equivalent forms of 86.127.

A. $86 + \frac{1}{10} + \frac{27}{100}$

B. $86 + \frac{1}{10} + \frac{2}{100} + \frac{7}{1000}$

C. $8 \times 10 + 6 \times 1 + 127 \times \frac{1}{1000}$

D. $86 + 0.1 + 0.20 + 0.700$

E. $86 + 0.1 + 0.02 + 0.007$

ITEM 50

Which one of the following is equivalent to 0.495?

A. $\frac{4}{1000} + \frac{9}{1000} + \frac{5}{1000}$

B. $\frac{400}{1000} + \frac{90}{1000} + \frac{5}{1000}$

C. $4 \times \frac{1}{100} + 9 \times \frac{1}{100} + 5 \times \frac{1}{100}$

D. $4 \times \frac{1}{1000} + 9 \times \frac{1}{1000} + 5 \times \frac{1}{1000}$

ITEM 51

Which **two** of the following are equal to 67.035?

A. Sixty-seven and thirty-five hundredths

B. $6 \times 10 + 7 \times 1 + 3 \times \frac{1}{10} + 5 \times \frac{1}{100}$

C. $6 \times 10 + 7 \times 1 + 3 \times \frac{1}{100} + 5 \times \frac{1}{1000}$

D. Sixty-seven and thirty-five tenths

E. Sixty-seven and thirty-five thousandths

ITEM 52

Which one of the following is equivalent to 0.579?

A. $\frac{5}{1000} + \frac{7}{1000} + \frac{9}{1000}$

B. $0.5 + 0.70 + 0.900$

C. $\frac{500}{1000} + \frac{70}{1000} + \frac{9}{1000}$

D. $5 \times \frac{1}{1000} + 7 \times \frac{7}{100} + 9 \times \frac{9}{10}$

ITEM 53

Roxie was instructed to write an equivalent form of a given decimal. This is what she wrote:

$$4 \times 10 + 6 \times \frac{1}{10} + 8 \times \frac{1}{100} + \frac{2}{1000}$$

What decimal is Roxie writing?

Enter the correct number in the blank.

40.682

Number and Operations in Base Ten
5.NBT.A.03b
Items 54 – 63

ITEM 54

Which inequality will be **true** when the **>** symbol is placed in the blank?

A. 0.009 ____ 0.1

B. 0.8 ____ 0.777

C. 22.266 ____ 221.5

D. 321.253 ____ 321.258

ITEM 55

Timothy said that 1.095 < 1.95. Which of the following best describes Timothy's statement?

A. Timothy's conclusion is false because 1.095 has more digits and is the larger number.

B. Timothy's conclusion is false because 95 thousandths is larger than 95 hundredths.

C. Timothy's conclusion is true because 95 hundredths is smaller than 95 thousandths.

D. Timothy's conclusion is true because 0 tenths is less than 9 tenths.

ITEM 56

Which of the following inequalities and supporting statements accurately compares the following numbers?

0.48 _____ 0.409

A. 0.48 > 0.409 because $\frac{480}{1000}$ is greater than $\frac{409}{1000}$.

B. 0.48 < 0.409 because 48 is less than 409

C. 0.48 > 0.409 because $\frac{48}{100}$ is greater than $\frac{409}{100}$.

D. 0.48 < 0.409 because 409 is greater than 48

ITEM 57

Which comparison symbol will make the sentence **true**?

6.203 ____ six and twenty-eight thousandths

A. >

B. =

C. <

ITEM 58

Which one of the following decimal equivalents will make this comparison **true**?

_____ > 5.908

A. Five and ninety-eight thousandths

B. $5 \times 1 + 8 \times \frac{1}{10} + 7 \times \frac{1}{100} + 6 \times \frac{1}{1000}$

C. $5 + \frac{9}{10} + \frac{8}{100}$

D. $5 + \frac{9}{1000}$

ITEM 59

Which statement and explanation correctly compares the two decimals?

0.307____0.45

A. 0.307 is greater than 0.45 because 307 thousandths is greater than 45 hundredths.

B. 0.307 is greater than 0.45 because 7 thousandths is greater than 0 thousandths.

C. 0.307 is less than 0.45 because 0 hundredths is less than 5 hundredths.

D. 0.307 is less than 0.45 because 307 thousandths is less than 450 thousandths.

ITEM 60

Which comparison symbol makes the number sentence **true**?

$$6 \times 10 + 2 \times 1 + \frac{74}{100} \_\_\_\_\_ 6 \times 10 + 2 \times 1 + \frac{5}{10} + \frac{9}{100} + \frac{3}{1000}$$

A. >

B. =

C. <

ITEM 61

Which of the following inequalities is **true**?

A. $2.035 > (2 \times 1) + (3 \times 0.1) + (5 \times 0.01)$

B. $4 \times 1 + 5 \times \frac{1}{10} < 4 \times 1 + 5 \times \frac{1}{100}$

C. Ninety-nine thousandths > sixteen hundredths

D. $(3 \times 1) + (8 \times 0.1) + (9 \times 0.01) > (3 \times 1) + (8 \times 0.01) + (9 \times 0.001)$

ITEM 62

Which symbol will make the comparison **true**?

thirty-four hundredths _____ three hundred forty thousandths

A. >

B. =

C. <

ITEM 63

Select **three** choices that show a correct comparison of decimals.

A. $0.16 < 0.017$

B. Fifty-eight thousandths < thirty-two hundredths

C. $1 + 6 \times \frac{1}{1000} > 1 + 6 \times \frac{1}{100}$

D. $\frac{1}{10} + \frac{5}{100} > \frac{143}{1000}$

E. Forty-eight hundredths $> \frac{82}{1000}$

Number and Operations in Base Ten
5.NBT.A.04
Items 64 – 72

ITEM 64

What is 14.235 rounded to the nearest tenth?

A. 14.0

B. 14.2

C. 14.230

D. 14.4

ITEM 65

What is 4,583.269 rounded to the nearest hundredth?

A. 4,583.26

B. 4,583.27

C. 4,583.70

D. 4,600.00

ITEM 66

What is 75.26 rounded to the nearest whole number?

A. 75

B. 75.2

C. 75.3

D. 76

ITEM 67

Round 158.56753 to the nearest thousandth.

Enter the correct number in the blank.

__158.568___

ITEM 68

Round 98.768 to the nearest hundredth.

Enter the correct number in the blank.

___98.77___

ITEM 69

Round 32.618 to the nearest tenth.

Enter the correct number in the blank.

___32.6___

ITEM 70

Round 451.6843 to the nearest thousandth.

A. 451.680

B. 451.684

C. 451.685

D. 451.700

ITEM 71

Round 28.478 to the nearest hundredth.

A. 28.58

B. 28.50

C. 28.48

D. 28.47

ITEM 72

Round 15.728 to the nearest tenth.

A. 15.7

B. 15.72

C. 15.73

D. 15.8

Number and Operations in Base Ten
5.NBT.B.05
Items 73 – 82

ITEM 73

Evaluate: 542 × 31

A. 2,168

B. 2,258

C. 16,802

D. 17,642

ITEM 74

Evaluate: 3,924 x 256

A. 51,012

B. 227,592

C. 992,224

D. 1,004,544

ITEM 75

Evaluate: 308 × 48

A. 3,696

B. 14,784

C. 14,792

D. 15,264

ITEM 76

Evaluate: 2,731 × 54

A. 147,474

B. 146,374

C. 112,464

D. 24,570

ITEM 77

Evaluate: 486×315

A. 4,374

B. 21,870

C. 153,090

D. 156,090

ITEM 78

Evaluate: 463 × 927

Enter the correct number in the blank.

__429,201___

ITEM 79

Evaluate: 324 × 41

A. 13,284

B. 13,184

C. 12,284

D. 1,520

ITEM 80

Evaluate: 736 x 14

A. 3,680

B. 7,784

C. 9,196

D. 10,304

ITEM 81

Evaluate: 9416 x 87

Enter the correct number in the blank.

__819,192___

ITEM 82

Evaluate: 525 x 13

Enter the correct number in the blank.

___6,825___

Number and Operations in Base Ten
5.NBT.B.06
Items 83 – 85

ITEM 83

Evaluate: 3604 ÷ 68

Enter the correct number in the blank.

53

ITEM 84

Nancy is solving the problem: $3{,}575 \div 25$

Part A

Using a variable, write a multiplication equation that can be used to solve this problem.
Explain how you know your equation works.

$25 \times q = 3575$

The variable q represents the quotient of $3{,}575 \div 25$.

I know my equation works because multiplication is the inverse of division, and if you multiply the quotient by the divisor it is equal to the dividend.

Part B

Explain one strategy Nancy could use to find the answer to the problem. Be sure to provide the answer to the problem in your explanation.

$3{,}575 \div 25 = 143$

Nancy could write 3, 575 in expanded form and determine how many groups of 25 can be divided into each place value. $3575 = 3000 + 500 + 75$

$3{,}575 \div 25 = (3000 \div 25) + (500 \div 25) + (75 \div 25) = 120 + 20 + 3 = 143$

- $3000 \div 25 = 120$
  I know this because there are 4 groups of 25 in 1000, 40 groups of 25 in 1000, and 120 groups of 25 in 3000.

- $500 \div 25 = 20$
  I know this because there are 4 groups of 25 in 100, and 20 groups of 25 in 500.

- $75 \div 25 = 3$
  I know there are 3 groups of 25 in 75.

ITEM 85

Part A
Solve the equation for the value of n.

$$n \times 20 = 1{,}580.$$

$1580 \div 20 = n$
$n = 79$

Part B
Explain how the relationship between multiplication and division can help solve this problem.

Division is the inverse of multiplication, and if you divide the product by one factor the result is equal to the other factor.

Part C
Write 1,580 in expanded notation. Explain how the value of n can be determined using expanding notation.

$1580 \div 20 = (1000 \div 20) + (500 \div 20) + (80 \div 20) = 50 + 25 + 4 = 79$

- $1000 \div 20 = 50$
  I know this because there are 5 groups of 20 in 100, and 50 groups of 20 in 1000.

- $500 \div 20 = 20$
  I know this because there are 5 groups of 20 in 100, and 25 groups of 20 in 500.

- $80 \div 20 = 4$
  I know there are 4 groups of 20 in 80.

Number and Operations in Base Ten
5.NBT.B.07
Items 86 – 96

ITEM 86

The Taylors are having a crawfish boil. Here are details for their gathering of family and friends:

- They plan to feed a total of 12 people.
- 3.5 sacks of crawfish were purchased.
- Each sack weighs 32 pounds.
- Each person will have 9 pounds of crawfish to eat.
- Any leftover pounds of crawfish will be used to make crawfish cornbread.

Part A

Write an equation or a series of equations that can be used to find out how many pounds of crawfish will be left for the crawfish cornbread.

$3.5 \times 32 = 112$

$12 \times 9 = 108$

$112 - 108 = 4$

Part B

Determine the number of pounds of crawfish leftover for the crawfish cornbread. Show your work or provide an explanation.

4 pounds of crawfish will be leftover to make the cornbread.

- $3.5 \times 32 = 112$
  3.5 sacks of crawfish times 32 pounds of crawfish per sack gives a total of 112 pounds of crawfish.

- $12 \times 9 = 108$
  12 people, each eating 9 pounds of crawfish, will consume a total of 108 pounds of crawfish.

- $112 - 108 = 4$
  Subtracting the amount of crawfish that everyone eats from the total amount gives is leftover for the cornbread recipe.

ITEM 87

Evaluate: 500 – 203.94

A. 206.06

B. 296.06

C. 297.94

D. 307.16

ITEM 88

What is the value of 0.7×0.3?

A. 0.21

B. 0.703

C. 0.73

D. 2.1

ITEM 89

Evaluate: 7.63 + 25.82

Enter the correct number in the blank.

___33.45___

ITEM 90

Evaluate: 0.47 x 2.6

Enter the correct number in the blank.

___1.222___

ITEM 91

Evaluate: 7.5 + 6.12

A. 0.687

B. 1.362

C. 6.87

D. 13.62

ITEM 92

Evaluate: 9.7 – 6.35

A. 3.35

B. 3.45

C. 5.44

D. 6.62

ITEM 93

Evaluate: 5.83 – 2.17

Enter the correct number in the blank.

___3.66___

ITEM 94

Ronnie grew 4 plants for his science experiment. The chart below represents the heights of the various plants.

Plant	Height in Inches
A	6.3
B	5.7
C	8.6
D	6.9

How much taller, in inches, is Plant C than Plant D?

A. 1.3

B. 1.7

C. 2.3

D. 2.7

ITEM 95

Evaluate: 3.5 x 1.8

A. 3.45

B. 5.65

C. 6.3

D. 7.5

ITEM 96

Hailey plans to buy some items from the concession stand at the movie theater. The prices listed in the chart do not include tax.

Concession Item	Price, in Dollars
Popcorn	7.75
Soda	5.15
Nachos	6.35
Hot Dog in Bun	3.85
Bag of Candy	4.65

How much would Hailey spend before taxes if she bought a popcorn, a soda, and a bag of candy?

A. $16.55

B. $17.55

C. $17.65

D. $19.25

Number and Operations—Fractions
5.NF.A.01
Items 97 – 98

ITEM 97

Which expression can be used to evaluate $\frac{9}{10} - \frac{1}{6}$?

A. $\frac{5}{6} - \frac{1}{6}$

B. $\frac{9}{10} - \frac{5}{10}$

C. $\frac{9}{30} - \frac{1}{30}$

D. $\frac{27}{30} - \frac{5}{30}$

ITEM 98

Which of the following equations is **true**?

A. $\frac{3}{5}+\frac{5}{8}=\frac{8}{13}$

B. $\frac{1}{8}+\frac{2}{3}=\frac{19}{24}$

C. $\frac{6}{7}+\frac{3}{4}=\frac{9}{28}$

D. $\frac{2}{3}+\frac{4}{5}=\frac{8}{15}$

Number and Operations—Fractions
5.NF.A.02
Items 99 – 102

ITEM 99

Kayla had $\frac{3}{4}$ of her book left to read on Sunday night. She read $\frac{1}{5}$ of the book Monday afternoon and $\frac{1}{4}$ of the book Monday evening. What fraction of the book did she still have left to read after Monday evening?

A. $\frac{3}{10}$

B. $\frac{1}{2}$

C. $\frac{11}{20}$

D. $\frac{7}{9}$

ITEM 100

James lives $\frac{5}{8}$ kilometer from the store. Sam lives $\frac{2}{4}$ kilometer from the store. How much farther, in kilometers, does James live from the store than Sam?

A. $\frac{3}{4}$

B. $\frac{5}{8}$

C. $\frac{2}{4}$

D. $\frac{1}{8}$

ITEM 101

Susan used $\frac{1}{4}$ cup of chocolate chips for her cupcake recipe. If she had $\frac{2}{3}$ cup of chocolate chips in her cabinet, what fraction of a cup of chocolate chips does she have left after making the cupcakes?

A. $\frac{11}{12}$ cup

B. $\frac{5}{12}$ cup

C. $\frac{3}{7}$ cup

D. $\frac{1}{3}$ cup

ITEM 102

Sherri and Chad are making a fruit punch by adding several different flavors of juice together. They are using the following recipe:

Fruit Punch

- $\frac{1}{2}$ cup orange juice
- $\frac{3}{4}$ cup lemonade
- $\frac{1}{3}$ cup pineapple juice
- $1\frac{2}{3}$ cup lemon lime soda

Chad claims that the recipe will make $1\frac{7}{12}$ cups after all the ingredients are combined.
His work is shown.

$$\frac{1}{2}+\frac{3}{4}+\frac{1}{3}+1\frac{2}{3}=1\frac{7}{12}$$

Chad's work is incorrect. Explain the error in Chad's work and explain or show work to find the correct answer. In your explanation include the total amount of cups the recipe will make.

Chad's work is incorrect because he simply carried over the whole number then added the numerators and denominators to get the sum $1\frac{7}{12}$. He did not consider that in order to add fractions with unlike denominators, it is necessary to rewrite each fraction as an equivalent fraction with the same denominator. Twelfths is a correct common unit for halves, fourths, and thirds, since 2, 3, and 4 all divide evenly into 12.

The correct sum is $3\frac{1}{4}$.

$\frac{1}{2}+\frac{3}{4}+\frac{1}{3}+1\frac{2}{3}$

$\left(\frac{1}{2}\times\frac{6}{6}\right)+\left(\frac{3}{4}\times\frac{3}{3}\right)+\left(\frac{1}{3}\times\frac{4}{4}\right)+(1)+\left(\frac{2}{3}\times\frac{4}{4}\right)$

$\frac{6}{12}+\frac{9}{12}+\frac{4}{12}+1+\frac{8}{12}$

$1\frac{27}{12}$

$3\frac{3}{12}$

$3\frac{1}{4}$

Number and Operations—Fractions
5.NF.A.02a
Items 103 – 117

ITEM 103

Three 5th Grade Classes at Middletown Elementary went on a field trip to a blueberry farm. Each class picked berries and then weighed them at the end. The chart below shows how many pounds each class collected.

Class	Pounds of Blueberries
Mrs. Bergeron	$48\frac{5}{8}$
Mr. Hopkins	$55\frac{2}{5}$
Mr. Watson	$56\frac{3}{5}$

How many more pounds of blueberries did Mr. Watson's class pick than Mrs. Bergeron's class?

A. $7\frac{3}{8}$

B. $7\frac{39}{40}$

C. $8\frac{1}{40}$

D. $8\frac{2}{3}$

ITEM 104

Nikki ran $1\frac{3}{4}$ miles on Saturday and $2\frac{2}{3}$ miles on Sunday. How many total miles did she run on Saturday and Sunday?

A. $3\frac{1}{12}$

B. $3\frac{13}{24}$

C. $3\frac{5}{7}$

D. $4\frac{5}{12}$

ITEM 105

Ned's job at the Farmer's Market was to separate peppers based on color and then weigh each amount. Ned entered the data in a table.

Pepper Color	Red	Green	Yellow	Orange
Number of Pounds of Peppers	$\frac{3}{4}$	$1\frac{1}{10}$	$2\frac{2}{3}$	$3\frac{1}{2}$

How many pounds of Yellow and Orange peppers did Ned sort?

A. $6\frac{1}{6}$

B. $5\frac{3}{5}$

C. $5\frac{7}{12}$

D. $5\frac{1}{6}$

ITEM 106

Ember is helping her mother with Thanksgiving dinner. She is responsible for making the chocolate chip cookies and the apple pie. The chocolate chip cookies need $\frac{3}{4}$ cup of sugar. The apple pie needs $\frac{1}{3}$ cup of sugar. How much sugar, in cups, does Ember need to make both desserts?

A. $\frac{5}{12}$

B. $\frac{4}{7}$

C. $\frac{12}{13}$

D. $1\frac{1}{12}$

ITEM 107

Kyle rode his bike $3\frac{2}{3}$ miles in the morning and $4\frac{3}{4}$ miles in the afternoon. How many total miles did Kyle ride his bike?

A. $7\frac{5}{12}$

B. $7\frac{7}{12}$

C. $8\frac{5}{12}$

D. $8\frac{7}{12}$

ITEM 108

Cameron jogged $\frac{1}{2}$ mile to meet his friend, and then jogged another $1\frac{2}{3}$ miles afterward. What is the total distance, in miles, Cameron jogged?

A. $1\frac{2}{5}$

B. 2

C. $2\frac{1}{6}$

D. $2\frac{1}{3}$

ITEM 109

Of the cans of soup in Rolando's cupboard, $\frac{1}{2}$ are vegetable and $\frac{2}{5}$ are chicken noodle. What fraction of the cans of soup in Rolando's cupboard are either vegetable or chicken noodle?

A. $\frac{1}{5}$

B. $\frac{3}{10}$

C. $\frac{3}{7}$

D. $\frac{9}{10}$

ITEM 110

Daniel made three apple pies that were the same size and shape for a celebration. After the celebration the following amounts of each pie were remaining:

- $\frac{5}{8}$ of the first pie
- $\frac{1}{6}$ of the second pie
- $\frac{1}{4}$ of the third pie

What is total amount of uneaten pie?

A. $\frac{7}{24}$

B. $\frac{7}{18}$

C. $\frac{25}{24}$

D. $\frac{19}{10}$

ITEM 111

Megan has read $\frac{1}{3}$ of her book. How much more of the book must she read to reach halfway through the book?

A. $\frac{1}{12}$

B. $\frac{1}{6}$

C. $\frac{1}{3}$

D. $\frac{2}{3}$

ITEM 112

Victor is made a snack for him and his friends. He combined $5\frac{1}{2}$ cups of popcorn, $1\frac{1}{4}$ cups of chocolate chips, and $\frac{3}{4}$ cup of raisins. When Victor and his friends finished eating the snack, there were $2\frac{3}{4}$ cups left over. How many cups of the snack did Victor and his friends eat?

A. $7\frac{1}{2}$

B. $6\frac{3}{4}$

C. $5\frac{1}{4}$

D. $4\frac{3}{4}$

ITEM 113

Francine had $\frac{3}{4}$ gallon of white paint and $\frac{1}{8}$ gallon of red paint. She mixed the two colors together to make a shade of pink paint. She then used $\frac{2}{3}$ gallon of this pink paint on a swinging bench and $\frac{1}{8}$ gallon for a small table. How much pink paint, in gallons, did Francine have left?

A. $\frac{1}{12}$

B. $\frac{1}{8}$

C. $\frac{1}{6}$

D. $\frac{7}{12}$

ITEM 114

Ejolie is going on a Weekend Camping and Hiking Expedition with a group of friends. Their goal is to hike the entire 10-mile trail. On Saturday, the group will make a morning and afternoon hike, then will set up camp and sleep for the night. Again on Sunday, they will make a morning and afternoon hike.

The chart below displays the group's hiking distance, in miles, for Saturday and part of Sunday.

Day	Morning Hike, in miles	Afternoon Hike, in miles
Saturday	$3\frac{5}{6}$	$2\frac{1}{2}$
Sunday	$1\frac{1}{3}$	

Part A

The Park Ranger recommends completing at least 6 miles of the trail by the end of the day Saturday. How many miles did the group hike by the end of Saturday? Show your work.

The group hiked a total of $6\frac{1}{3}$ miles on Saturday.

$\frac{1}{2} = \frac{3}{6}$

$3\frac{5}{6} + 2\frac{1}{2} = 3\frac{5}{6} + 2\frac{3}{6} = 5\frac{8}{6} = 6\frac{2}{6} = 6\frac{1}{3}$

Part B

In order to finish the 10 mile trail, how many miles will the group need to complete on Sunday's afternoon hike? Show your work.

The group must hike $2\frac{1}{3}$ miles on Sunday afternoon in order to complete the 10 mile trail.

$6\frac{1}{3} + 1\frac{1}{3} = 7\frac{2}{3}$

$10 - 7\frac{2}{3} = 2\frac{1}{3}$

ITEM 115

Ellie has a goal to run $5\frac{1}{2}$ miles in 40 minutes and has been training each week. This past week, she was able to run $3\frac{3}{4}$ miles in 40 minutes. How many miles does she have to run within 40 minutes to reach her goal?

A. $2\frac{3}{4}$

B. $2\frac{1}{4}$

C. $1\frac{5}{8}$

D. $1\frac{3}{4}$

ITEM 116

For Anna's dinner party, she plans on using flour for two different recipes. For the gravy, she needs $\frac{1}{4}$ cup of flour. For cookies, she needs $3\frac{2}{3}$ cups of flour. How much flour will she need for both recipes?

A. $3\frac{5}{12}$

B. $3\frac{5}{7}$

C. $3\frac{11}{12}$

D. $4\frac{5}{7}$

ITEM 117

Emery has joined a book club that meets on Fridays during their lunch break. The club's goal is to read and discuss a ten-chapter book each week.

The chart displays the amounts of this week's book that Emery read on Monday through Wednesday.

Student	Monday	Tuesday	Wednesday	Thursday
Emery	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{6}$	

Part A
How much of the book did Emery read by Wednesday? Show your work or explain your answer.

¼ + 1/3 + 1/6 = ¾

Part B

- Write an equation that can be used to determine what fraction of the book Emery needs to read on Thursday in order to be ready for the book club meeting on Friday.

  ¼ + 1/3 + 1/6 + x = 1

- Use your equation to determine what fraction of the book Emery must read on Thursday.

  x = 1/4

Number and Operations—Fractions
5.NF.A.02b
Items 118 – 127

ITEM 118

Taylor and Samantha are working together to finish a project for social studies class. Independently, Taylor has already completed $\frac{1}{5}$ of the project and Samantha has already completed $\frac{1}{2}$ of the project. Samantha wrote the following equation to determine how much of their project has already been done:

$$\frac{1}{5} + \frac{1}{2} = \frac{2}{7}$$

Taylor says, "Samantha, you made an error. Your sum is not reasonable because…"

Which of the following phrases would correctly finish Taylor's statement?

A. "…one fifth is less than two sevenths."

B. "…one fifth is more than two sevenths."

C. "…one half is more than two sevenths."

D. "…one half is less than two sevenths."

ITEM 119

It takes more than a day for Ms. Helm to drive to her sister's house for a visit. On the first day she drove $\frac{3}{8}$ of the distance and on the second day she drove $\frac{1}{3}$ of the distance. Which statement describes where Ms. Helm was after the second day of her trip?

A. Ms. Helm was less than half-way to her sister's house because $\frac{3}{8} + \frac{1}{3}$ is less than $\frac{1}{2}$.

B. Ms. Helm was exactly half-way to her sister's house because $\frac{3}{8} + \frac{1}{3}$ is equal to $\frac{1}{2}$.

C. Ms. Helm was more than halfway to her sister's house because $\frac{3}{8} + \frac{1}{3}$ is more than $\frac{1}{2}$.

D. Ms. Helm arrived at her sister's house because $\frac{3}{8} + \frac{1}{3}$ is more than 1.

ITEM 120

Jeff baked a loaf of bread. He plans to eat $\frac{1}{8}$ of the loaf and give $\frac{1}{3}$ of the loaf to his grandmother. Jeff wants to know how much bread he will have left. Which estimate is most accurate?

A. About $\frac{1}{2}$ of the loaf because $\frac{1}{3}$ plus a little more is close to $\frac{1}{2}$.

B. About $\frac{3}{4}$ of the loaf because both $\frac{1}{3}$ and $\frac{1}{8}$ are less than $\frac{1}{2}$.

C. About $\frac{1}{24}$ of the loaf because the common denominator of $\frac{1}{3}$ and $\frac{1}{8}$ is 24.

D. About $\frac{9}{11}$ of the loaf because he will use up $\frac{1}{8} + \frac{1}{3} = \frac{2}{11}$ of the bread.

ITEM 121

Kelli is making two bean dishes. The first dish needs $\frac{7}{8}$ pound of beans. The second dish requires $\frac{3}{4}$ pound of beans. About how many pounds of beans will Kelli need to make both dishes?

A. Less than $\frac{1}{2}$ pound

B. More than $\frac{1}{2}$ pound but less than 1 pound

C. Almost 2 pounds

D. More than 2 pounds

ITEM 122

Which of the following inequalities is **true**?

A. $\frac{1}{2}+\frac{5}{8}<1$

B. $\frac{3}{4}+\frac{2}{3}<1$

C. $\frac{1}{2}+\frac{3}{4}>1$

D. $\frac{2}{3}+\frac{2}{8}>1$

ITEM 123

Which of the following expressions will have a difference less than 1?

A. $3\frac{2}{3} - 1\frac{1}{4}$

B. $4\frac{3}{4} - 3\frac{1}{2}$

C. $2\frac{1}{2} - \frac{3}{4}$

D. $2\frac{1}{4} - 1\frac{5}{8}$

ITEM 124

Which one of the following expressions will have a difference greater than 1?

A. $1\frac{1}{4} - \frac{2}{3}$

B. $1\frac{2}{3} - \frac{1}{4}$

C. $2\frac{1}{2} - 1\frac{3}{4}$

D. $2\frac{1}{4} - 1\frac{1}{2}$

ITEM 125

Select **three** expressions that will result in a sum less than 1.

A. $\frac{1}{4} + \frac{2}{3}$

B. $\frac{3}{7} + \frac{2}{5}$

C. $\frac{4}{5} + \frac{2}{3}$

D. $\frac{5}{9} + \frac{3}{4}$

E. $\frac{2}{7} + \frac{1}{9}$

ITEM 126

Select **three** expressions that will result in a sum greater than 1.

A. $\frac{1}{2} + \frac{2}{5}$

B. $\frac{1}{2} + \frac{3}{4}$

C. $\frac{5}{8} + \frac{3}{5}$

D. $\frac{4}{5} + \frac{4}{7}$

E. $\frac{3}{8} + \frac{4}{9}$

ITEM 127

Marcus evaluated the following expression and got the answer shown.

$$\frac{3}{5} + \frac{1}{4} = \frac{4}{9}$$

Which one of the following statements correctly describes Marcus' equation?

A. His equation is correct because 3 + 1 = 4 and 5 + 4 = 9.

B. His equation is correct because both $\frac{3}{5}$ and $\frac{1}{4}$ are less than $\frac{1}{2}$.

C. His equation is incorrect because $\frac{3}{5} + \frac{1}{4} = \frac{4}{20}$.

D. His equation is incorrect because $\frac{3}{5}$ is greater than $\frac{1}{2}$ and his sum of $\frac{4}{9}$ is less than $\frac{1}{2}$.

Number and Operations—Fractions
5.NF.B.03
Items 128 – 134

ITEM 128

A farmer owns 6 horses that each stay in a private stall. He has 74 pounds of hay that he is going to feed to the horses. Each horse will get an equal amount of hay. If all of the hay is given to the horses, how many pounds of hay will each horse receive?

A. $12\frac{1}{3}$

B. $12\frac{1}{6}$

C. $11\frac{3}{4}$

D. $11\frac{1}{3}$

ITEM 129

Ms. Belinda's Brownie Shop is known for her Choco Monster brownies. Ms. Belinda uses 12 ounces of chocolate chips for 36 brownies. How many ounces of chocolate chips will be used for each brownie?

A. $\frac{1}{4}$

B. $\frac{1}{3}$

C. 3

D. 6

ITEM 130

Which question would have a solution of $\frac{280}{16}$?

A. Joshlyn's favorite book has 280 pages. If it takes her 16 minutes to read 10 pages, how many pages can she read per hour?

B. Joshlyn has 280 pages left to read. If she reads 16 pages today, how many pages will she need to read the rest of the week if she wants to finish it?

C. Joshlyn has a series of books that each has 280 pages. If she reads all 16 books, how many pages will she have read in all?

D. Joshlyn read 280 pages in 16 days. If she reads the same number of pages each day, how many pages will she read per day?

ITEM 131

Winslow has 2 blocks of modeling clay. He plans to make 3 plant pots with the clay. If he wants to use the same amount of clay for each pot, how much clay will he use for each pot?

A. $\frac{2}{3}$ block

B. $\frac{3}{2}$ blocks

C. 5 blocks

D. 6 blocks

ITEM 132

Which expression is equivalent to $\frac{6}{14}$?

A. 14 – 6

B. 6 + 14

C. 14 ÷ 6

D. 6 ÷ 14

ITEM 133

Four fifth-grade classes at Clarence Elementary school have a total of 10 pounds of candy to share at their Christmas party. If the classrooms share the candy equally, how many pounds of candy will each classroom receive?

A. $\frac{1}{2}$

B. 2

C. $2\frac{1}{2}$

D. 40

ITEM 134

A teacher at a daycare center must split 4 gallons of milk among 8 classes. If each classroom receives an equal share of the milk, how much milk will each classroom receive?

A. $\frac{1}{2}$

B. 2

C. 12

D. 32

Number and Operations—Fractions
5.NF.B.04a
Items 135 – 146

ITEM 135

Which **two** expressions can be used to solve $\frac{4}{12} \times 9$?

A. $4 \times 12 \div 9$

B. $4 \times 9 \div 12$

C. $12 \div 4 \times 9$

D. $12 \div 9 \times 4$

E. $4 \div 12 \times 9$

ITEM 136

The Tioga swim team has 24 team members. Of those 24 members, $\frac{3}{4}$ are girls. How many boys are on the team?

A. 32

B. 18

C. 8

D. 6

ITEM 137

Coraline and Sally are packing small bags of trail mix for the 48 members of their Girl Scout troop. Of these 48 members, $\frac{3}{8}$ of them have food allergies and cannot eat peanuts. Coraline and Sally decided to make sure that $\frac{3}{8}$ of the bags they make are properly labeled and do not contain peanuts.

Part A

How many bags of trail mix will not contain peanuts?

18 bags of trail mix will not contain peanuts.

$\frac{3}{8} \times 48 = 3 \times \frac{1}{8} \times 48 = 3 \times 6 = 18$

Part B

How does knowing the value of $\frac{1}{8} \times 48$ help you find your answer to Part A?

Knowing that $\frac{3}{8}$ is the same as $3 \times \frac{1}{8}$ makes it easy to find $\frac{1}{8}$ of 48 then multiply that amount by 3.

ITEM 138

A youth club is hosting a party for kids in the neighborhood. The party begins at 4:00 PM and ends at 8:00 PM. The club wants to order 42 pizzas for the party but doesn't want them delivered all at once. They created a schedule for when the pizzas should be delivered.

- $\frac{1}{3}$ of the pizzas will be delivered at 4:00 PM.
- Of the pizzas that are left, $\frac{3}{4}$ of them will be delivered at 6:00 PM.
- The rest of the pizzas will be delivered at 7:00 PM.

Part A
Write an expression or an equation that can be used to determine the number of pizzas to be delivered at 4 PM.

$\frac{1}{3} \times 42 = 14$

Part B
How many pizzas will be delivered at 7:00 PM? Show your work or give an explanation.

At 7 PM, 7 pizzas will be delivered.

$\frac{1}{3} \times 42 = 14$ 14 pizzas will be delivered at 4 PM.

$42 - 14 = 28$
$\frac{3}{4} \times 28 = 28 \div 4 \times 3 = 7 \times 3 = 21$ 21 pizzas will be delivered by 6 PM.

$42 - 14 - 21 = 7$ 7 pizzas will be delivered at 7 PM.

ITEM 139

Evaluate: $\frac{3}{4} \times 24$

A. 6

B. 12

C. 18

D. 32

ITEM 140

Cory read $\frac{3}{5}$ of the manual for operating his new laptop. If the manual has 30 pages, how many pages did he read?

Select **two** expressions that can help solve the problem.

A. $30 \div \frac{3}{5}$

B. $\frac{3}{5} \times 30$

C. $\frac{3}{5} \div 30$

D. $3 \times 30 \div 5$

E. $5 \times 30 \div 3$

ITEM 141

Which story context can be modeled by the given expression?

$$\frac{5}{6} \times 30$$

A. Shelia has 30 feet of rope. How many $\frac{5}{6}$-foot sections can she make from the 30 feet of rope?

B. Mickey has $\frac{5}{6}$ foot of ribbon. He needs to cut the ribbon into 30 equal pieces. How many pieces can he make out of the ribbon?

C. Oscar finished $\frac{5}{6}$ of his homework in 30 minutes. How many minutes will it take him to complete his entire homework assignment?

D. Wayne had 30 gallons of paint and used $\frac{5}{6}$ of it to paint his house. How many gallons of paint did he use to paint his house?

ITEM 142

Mr. Luther is boiling 36 eggs for Easter. $\frac{1}{4}$ of the eggs will be used to make macaroni salad. The rest of the eggs will be dyed for the Easter Egg Hunt. How many eggs is Mr. Luther dying for the Easter Egg Hunt?

A. 9

B. 24

C. 27

D. 32

ITEM 143

Mrs. Jemmy surveyed her 24 fifth-grade students about their preference of chocolate, strawberry, or vanilla ice cream. The survey revealed that $\frac{1}{4}$ of the students prefer chocolate ice cream and $\frac{5}{12}$ of her students prefer vanilla ice cream. How many students prefer strawberry ice cream?

A. 6

B. 8

C. 10

D. 16

ITEM 144

Mrs. West surveyed her 30 fifth-grade students to find out about their reading preferences. The genre choices were fantasy, mystery, and non-fiction. The results of Mrs. West's survey revealed that $\frac{3}{5}$ of students prefer to read fantasy and $\frac{1}{6}$ of her students prefer reading non-fiction. How many students prefer reading mystery books?

A. 7

B. 10

C. 23

D. 26

ITEM 145

Which scenario can be solved with the following expression?

$$\frac{5}{8} \times 12$$

A. Herman has $\frac{5}{8}$ of a large bag of cookies to share among 12 people. What fraction of the bag will each person get?

B. Nila has 12 feet of ribbon. She needs to cut the ribbon into $\frac{5}{8}$-foot pieces. How many $\frac{5}{8}$-foot pieces of ribbon can she make out of the 12 feet of ribbon?

C. Richard has 12 ounces of paint. If he used $\frac{5}{8}$ of the can of paint, how many ounces did he use?

D. Kelsea needs $\frac{5}{8}$ of a stick of butter for a recipe. If the recipe will feed 12 people, what fraction of the butter would each person get?

ITEM 146

Which expression is equivalent to $\frac{1}{2} \times 6$?

A. $1 \div 2 \div 6$

B. $2 \div 6 \div 1$

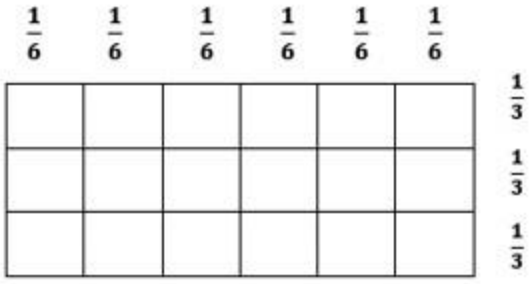
C. $2 \times 6 \div 1$

D. $1 \times 6 \div 2$

Number and Operations—Fractions
5.NF.B.04b
Items 147 – 148

ITEM 147

Use the model and expression to complete the following tasks.



$$\frac{5}{6} \times \frac{2}{3}$$

Part A

Use the area model to explain how to evaluate $\frac{5}{6} \times \frac{2}{3}$.

To model $\frac{5}{6} \times \frac{2}{3}$, use yellow to shade 5 cells in each row and use blue to shade 2 cells in each column. The product will be shaded in green: 10 out of 18 cells are shaded green.

$\frac{5}{6} \times \frac{2}{3} = \frac{10}{18}$

Part B

Create a story context for the expression $\frac{5}{6} \times \frac{2}{3}$ by providing a real-world meaning for both fractions and a question whose answer is the evaluation of $\frac{5}{6} \times \frac{2}{3}$.

In Ms. Zee's class, $\frac{5}{6}$ of her students have a dog, and $\frac{2}{3}$ of the students who have a dog also have a cat. What fraction of students in Ms. Zee's class have both a dog and a cat?

ITEM 148

Which story context could represent the following expression?

$$\frac{3}{4} \times \frac{2}{3}$$

A. Hailey ordered a pizza. After eating some pizza she had $\frac{3}{4}$ of the pizza left over. The next day she ate $\frac{2}{3}$ of the remaining pizza. How much of the pizza did she ate on the second day?

B. Noelle has $\frac{3}{4}$ of a piece of plywood. How many $\frac{2}{3}$-portions can she cut from the piece of plywood?

C. Bobby spent $\frac{3}{4}$ of an hour completing homework. Nick spent $\frac{2}{3}$ of hour completing homework. How much time did they both spend on completing homework?

D. Mark had $\frac{3}{4}$ of a cup of sugar in a jar. He used $\frac{2}{3}$ of a cup of the sugar. How much sugar does he have left?

Number and Operations—Fractions
5.NF.B.04d
Items 149 – 150

ITEM 149

Douglas drew a rectangle with a length of $\frac{3}{5}$ yard and a width of $\frac{7}{9}$ yard. What is the area, in square yards, of Douglas's rectangle?

A. $\frac{10}{45}$

B. $\frac{21}{45}$

C. $\frac{10}{14}$

D. $\frac{21}{14}$

ITEM 150

Sally cut a rectangle from a large piece of canvas. The rectangle is $\frac{5}{6}$ foot long and $\frac{4}{6}$ foot wide. What is the area, in square feet, of the canvas?

A. $\frac{9}{36}$

B. $\frac{20}{36}$

C. $\frac{9}{12}$

D. $\frac{20}{12}$

Number and Operations—Fractions
5.NF.B.05a
Items 151 – 154

ITEM 151

Omar is reasoning about which of the following expressions result in a value greater than 9. He is thinking about the relationships between the numbers being multiplied instead of evaluating the expressions.

#	I	II	III	IV	V
Expression	$9 \times \frac{5}{16}$	$9 \times 1\frac{9}{10}$	$9 \times \frac{9}{9}$	$9 \times \frac{18}{9}$	$9 \times \frac{9}{10}$

Which pair of expressions will both result in a product greater than 9?

A. I and III

B. II and IV

C. III and V

D. IV and I

ITEM 152

Diana says that the product of $\frac{3}{5} \times \frac{4}{5}$ is greater than 1. Which statement explains whether Diana is correct or incorrect?

A. Diana is correct, because 3 × 4 is 12 and $\frac{12}{5}$ is greater than 1.

B. Diana is incorrect, because both numbers are less than 1, so the product will also be less than 1.

C. Diana is correct, because $\frac{3}{5} + \frac{4}{5}$ is greater than 1 and multiplication creates larger results than addition.

D. Diana is incorrect, because multiplying by a fraction always yields a product less than 1.

ITEM 153

Which statement is **true** about the product for the given expression?

$$\frac{1}{2} \times \frac{7}{8}$$

A. $\frac{1}{2} \times \frac{7}{8}$ is twice as large as $\frac{7}{8}$.

B. $\frac{1}{2} \times \frac{7}{8}$ is more than $\frac{7}{8}$.

C. $\frac{7}{8}$ is half of $\frac{1}{2} \times \frac{7}{8}$.

D. $\frac{7}{8}$ is twice as large as $\frac{1}{2} \times \frac{7}{8}$.

ITEM 154

Which option best describes the product of 5 and $\frac{9}{10}$?

A. The product will be slightly less than 5.

B. The product will be much less than 5.

C. The product will be slightly greater than 5.

D. The product will be much greater than 5.

Number and Operations—Fractions
5.NF.B.06
Items 155 - 161

ITEM 155

In a survey, $\frac{2}{5}$ of 300 people said they are in favor of a new parking garage downtown. How many people are in favor of the new parking garage?

A. 60

B. 75

C. 120

D. 150

ITEM 156

Of the students in Ms. Fisher's class, $\frac{5}{6}$ play a sport. Of the students who play a sport, $\frac{2}{3}$ play soccer. What fraction of the students in Ms. Fisher's class play soccer?

A. $\frac{10}{18}$

B. $\frac{10}{15}$

C. $\frac{5}{6}$

D. $\frac{10}{6}$

ITEM 157

Mr. Hernandez made sandwiches for a picnic. Of the sandwiches he made, $\frac{1}{6}$ of them were turkey sandwiches. Mr. Hernandez added cheese to $\frac{1}{2}$ of the turkey sandwiches he made. What fraction of the sandwiches made by Mr. Hernandez had both turkey and cheese?

A. $\frac{4}{6}$

B. $\frac{2}{8}$

C. $\frac{1}{8}$

D. $\frac{1}{12}$

ITEM 158

The coach of the football team, The Red River Raiders, is planning practice for his 24 football players. He will have $\frac{1}{3}$ of the team working on throwing and catching drills, $\frac{1}{4}$ of the team working on kicking drills, and the rest of the team working on blocking drills.

Part A
Write an equation or equations that can be used to find out how many of the players will be working on blocking drills.

$\frac{1}{3}+\frac{1}{4}=\frac{4}{12}+\frac{3}{12}=\frac{7}{12}$

$1-\frac{7}{12}=\frac{5}{12}$

$\frac{5}{12}$ of the players will be working in blocking drills.

Part B
How many players will be working on blocking drills? Show your work or give an explanation.

10 players will be working on blocking drills.

$\frac{5}{12}\times 24=5\times\frac{1}{12}\times 24=5\times 2=10$

ITEM 159

Shea and Rayne are friends and went shopping together.

- Shea started with $\$36$. She spent $\frac{2}{3}$ of her money on clothes and $\frac{1}{4}$ of her money on music.
- Rayne started with $\$30$. She spent $\frac{3}{5}$ of her money on clothes and $\frac{1}{10}$ of her money on music.

Part A

Write an equation or a series of equations to determine the amount of money that Shea has left.

$\frac{2}{3}+\frac{1}{4}=\frac{8}{12}+\frac{3}{12}=\frac{11}{12}$

$1-\frac{11}{12}=\frac{1}{12}$

$\frac{1}{12}\times 36=3$

Part B

Write an equation or a series of equations to determine the amount of money that Rayne has left.

$\frac{3}{5}+\frac{1}{10}=\frac{6}{10}+\frac{1}{10}=\frac{7}{10}$

$1-\frac{7}{10}=\frac{3}{10}$

$\frac{3}{10}\times 30=3\times\frac{1}{10}\times 30=3\times 3=9$

Part C

At the end of this shopping trip, which girl has more money left over and how much more money does she have compared to her friend?

At the end of the shopping trip, Rayne has $6 more than Shea. Rayne has $9 left and Shea has only $3 remaining.

ITEM 160

Jamiah is campaigning for Student Council President at her school. She is designing two posters for the election. The table below describes the dimensions of the two posters for Jamiah's campaign.

	Length, in feet	**Width, in feet**
Poster 1	3	$1\frac{1}{3}$
Poster 2	$2\frac{2}{3}$	$1\frac{1}{2}$

Part A

What is the combined area of both posters, in square feet?

The combined area of both posters is 8 square feet.

$3 \times 1\frac{1}{3} = 3 \times \frac{4}{3} = \frac{12}{3} = 4$

$2\frac{2}{3} \times 1\frac{1}{2} = \frac{8}{3} \times \frac{3}{2} = \frac{24}{6} = 4$

$4 + 4 = 8$

Part B

Jamiah takes $\frac{3}{4}$ of an hour to decorate 1-square foot of poster. What total amount of time, in hours, will it take her to design both campaign posters? Show your work or give an explanation.

Jamiah will need 6 hours to design both posters.

$\frac{3}{4} \times 8 = \frac{24}{4} = 6$

ITEM 161

Becky had $\frac{1}{2}$ yard of felt. She cut off $\frac{3}{5}$ of it to cover the surface of a small can. What fraction of the piece of felt did she use for the can?

A. $\frac{3}{10}$

B. $\frac{4}{7}$

C. $\frac{2}{3}$

D. $\frac{5}{6}$

Number and Operations—Fractions
5.NF.B.07b
Item 162

ITEM 162

Evaluate: $7 \div \frac{1}{9}$.

Enter the correct number in the blank.

63

Number and Operations—Fractions
5.NF.B.07c
Items 163 – 168

ITEM 163

Ember is working on a project. She has a 12-inch piece of rope that she needs to cut into quarter-inch pieces. How many $\frac{1}{4}$-inch pieces can she cut from the 12-inch rope?

A. 3 pieces

B. $12\frac{1}{4}$ pieces

C. 36 pieces

D. 48 pieces

ITEM 164

Lana follows a pancake recipe which calls for $\frac{1}{2}$ cup of whole wheat flour. The recipe makes 4 servings of pancakes. How many cups of whole wheat flour are in each serving?

A. $\frac{1}{8}$

B. $\frac{1}{6}$

C. $\frac{1}{4}$

D. $\frac{1}{2}$

ITEM 165

Andrea has $\frac{1}{4}$ of a bag of marshmallows. She portions the marshmallows equally to make 7 treat bars. What fraction of the full bag of marshmallows is in each treat bar?

A. $\frac{29}{4}$

B. $\frac{7}{4}$

C. $\frac{1}{7}$

D. $\frac{1}{28}$

ITEM 166

Zeik is cooking $\frac{1}{3}$ of a bag of rice for a meal. He will serve each of his 3 guests and himself the same amount of rice with no rice leftover. What fraction of the bag of rice will each person get?

A. $\frac{1}{12}$

B. $\frac{1}{9}$

C. $1\frac{1}{3}$

D. $4\frac{1}{3}$

ITEM 167

Suzanna cannot find the measuring cup that she uses to make her coffee. Instead she has to use a quarter-cup measuring scoop. If she normally adds 2 cups of coffee grounds to the filter, how many $\frac{1}{4}$ cup scoops will she need to use?

A. $\frac{1}{8}$

B. $\frac{1}{2}$

C. 4

D. 8

ITEM 168

Gerald uses string to mend torn sweaters. He has 5 feet of string and uses $\frac{1}{4}$ foot of string to sew each sweater back together. What is the total number of sweaters Gerald can mend with all 5 feet of string?

Enter the correct number in the blank.

20

Measurement and Data
5.MD.A.01
Items 169 – 177

ITEM 169

Which amount has the largest volume?

A. 24 cups

B. 16 pints

C. 10 quarts

D. 2 gallons

ITEM 170

Edward is 60 inches tall. How tall is Edward, in feet?

A. 3 feet

B. 4 feet

C. 5 feet

D. 6 feet

ITEM 171

John drinks 40 ounces of water per day. How many cups of water does John drink per day?

A. 5 cups

B. 8 cups

C. 10 cups

D. 12 cups

ITEM 172

Brandon is in the school play. He has 10 lines. Each line takes 30 seconds to read. How many minutes will it take Brandon to read all his lines?

A. 2 minutes

B. 5 minutes

C. 7 minutes

D. 10 minutes

ITEM 173

Alison is purchasing a reusable water bottle for her camping trip. She compares the capacity of four bottles.

Bottle 1	Bottle 2	Bottle 3	Bottle 4
33 ounces	4 cups	2.5 pints	1 quart

If Alison wants the bottle with the greatest capacity, which bottle should she purchase?

A. Bottle 1

B. Bottle 2

C. Bottle 3

D. Bottle 4

ITEM 174

Gerald learned that an average bath uses 35 gallons of water while a five-minute shower uses only 12.5 gallons of water. How many **quarts** of water are saved by taking a five-minute shower instead of a bath?

A. 22.5 quarts

B. 50 quarts

C. 90 quarts

D. 140 quarts

ITEM 175

Which measurement is the longest distance?

A. 72 miles

B. 180,000 yards

C. 600,000 feet

D. 5,000,000 inches

ITEM 176

Sherry made a planting mixture with 32 ounces of potting soil, 15 ounces of peat moss, and 4 ounces of sand. She used $2\frac{1}{2}$ pounds of this mixture to plant flowers. How many ounces of the mixture does Sherry have left?

A. 11 ounces

B. 21 ounces

C. 31 ounces

D. 48.5 ounces

ITEM 177

Janelle is sending a package to her friend and needs to calculate the weight of the contents of the package. She weighs each item and places this data in the table.

Object	Weight
Pad of paper & pencil	8 oz
Coloring book	5 oz
Dictionary	2 lb
Toy	11 oz

What is the total weight of the contents in her package?

A. 26 oz

B. 40 oz

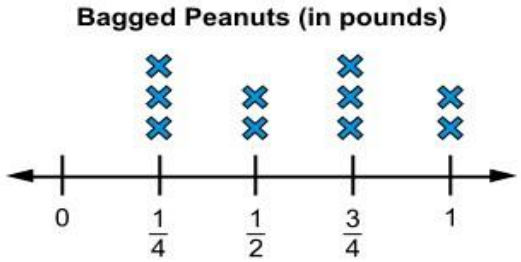
C. 3 lb 8 oz

D. 5 lb 6 oz

Measurement and Data
5.MD.B.02
Item 178

ITEM 178

The concession stand sells peanuts at football games. The peanuts are sold in $\frac{1}{4}$-pound , $\frac{1}{2}$-pound, $\frac{3}{4}$-pound, or 1-pound bags. The line plot shows the numbers of bags of peanuts that were sold during last week's game.



What is the total weight, in pounds, of peanuts sold at the football game in pounds?

A. 2

B. 3

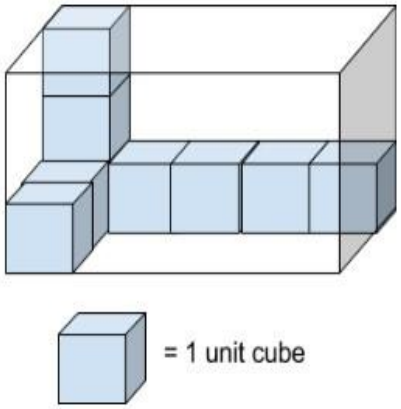
C. 6

D. 10

Measurement and Data
5.MD.C.03
Item 179

ITEM 179

How many unit cubes are needed to construct the prism shown?



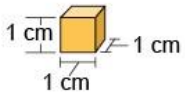
Enter the correct number in the blank.

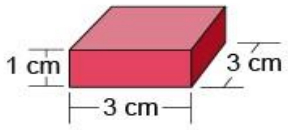
45

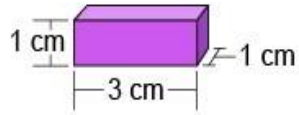
Measurement and Data
5.MD.C.03a
Items 180 - 181

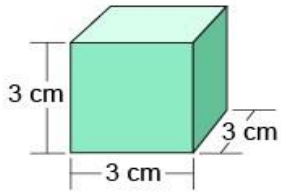
ITEM 180

Stacey is going to use a unit cube that has a volume of 1 cubic centimeter in order to find the volume of a larger cube with side lengths of 3 centimeters. Which one of the following objects represents the unit cube that she will use?

A. 

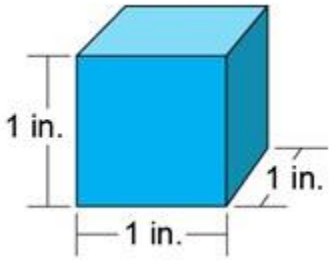
B. 

C. 

D. 

ITEM 181

What is the volume of this cube?



A. 1 square inch

B. 3 square inches

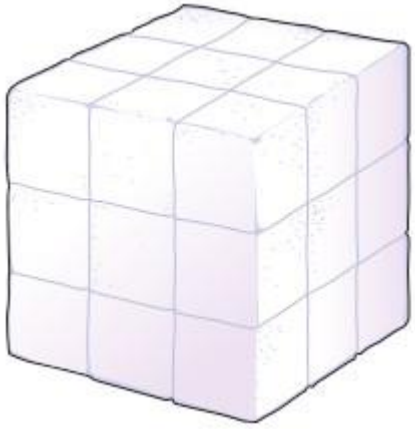
C. 1 cubic inch

D. 3 cubic inches

Measurement and Data
5.MD.C.03b
Item 182

ITEM 182

Small sugar cubes are sold packed like a large cube inside of a box, as in the arrangement shown. There are no gaps or overlaps in the parts of the cube that cannot be seen in its two-dimensional image.



What is the volume of the box, in sugar cubes?

A. 19 small sugar cubes

B. 27 small sugar cubes

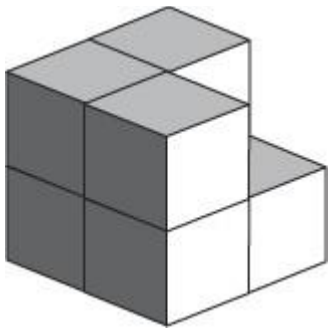
C. 54 small sugar cubes

D. 81 small sugar cubes

Measurement and Data
5.MD.C.04
Items 183 – 184

ITEM 183

Britney uses several small cubes with edge lengths of 1 unit to construct a larger cube with edge lengths of 2 units. Then she removes one of the smaller cubes to create the figure shown.



What is the volume, in cubic units, of the figure?

A. 1 cubic unit

B. 3 cubic units

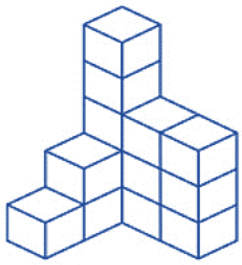
C. 7 cubic units

D. 8 cubic units

ITEM 184

Willow and London are using centimeter cubes to understand how to find the volume of differently sized solid figures. Each centimeter cube has a volume of 1 cubic centimeter.

Part A
Willow built her figure like the picture shown below. What is the volume, in cubic centimeters, of Willow's figure? Show your work or give an explanation.



The volume of Willow's figure is 14 cubic centimeters.
If each centimeter cube has a volume of 1 cubic centimeter, then the cubes can be counted to find the volume of the figure. There are visible 12 cubes plus 2 more that are hidden at the base of the tallest column. Another method is to decompose this figure into 4 prisms, find the volume of each prism, and add the volumes together:
2 x 3 x 1 = 6 cubic cm
1 x 5 x 1 = 5 cubic cm
1 x 2 x 1 = 2 cubic cm
1 x 1 x 1 = 1 cubic cm
6 + 5 + 2 + 1 = 14 cubic cm

Part B
London built a figure 3 centimeters long, 4 centimeters wide, and 2 centimeters tall.

- What is the total volume, in cubic centimeters, of London's figure?

  The total volume of London's figure is 24 cubic centimeters. 3 x 4 x 2 =24

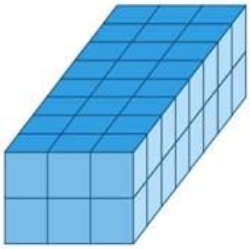
- How does finding the volume of London's figure compare to finding the volume of Willow's figure?

  Willow's figure does not have one particular length, one particular height, and one particular width. The volume of Willow's figure can only be found by decomposing her figure into prisms and adding the areas of each prism together, or by decomposing her figure into unit cubes and counting all of the unit cubes. London's figure is a prism, and the volume can be found by multiplying the three dimensions together, or by finding the area of one of the bases, and then multiplying that amount by the height of the prism.

Measurement and Data
5.MD.C.05a
Items 185 - 188

ITEM 185

Richard is trying to find the volume of this rectangular prism. Which expression will help him find the volume?



A. 8 x 2 + 3

B. 26 + 16 + 6

C. 8 x 2 x 3

D. 24 x 3

ITEM 186

Cheyenne was given 36 unit cubes to make a rectangular prism. Each unit cube has a volume of 1 cubic unit. She was told to construct a prism using all 36 unit cubes, so that the prism has a volume of 36 cubic units. Cheyenne created a table to help organize her thoughts but got confused and needs your help.

Sets of Dimensions for a Rectangular Prism with a Volume of 36 cubic units			
	Length, in units	**Width, in units**	**Height, in units**
Prism 1	2	3	6
Prism 2	4	9	1

Part A

Add values to her table that give the dimensions for two different prisms.

All possible combinations involve three factors of 36.

Part B

Write an explanation how you got each set of dimensions so that Cheyenne can understand your reasoning.

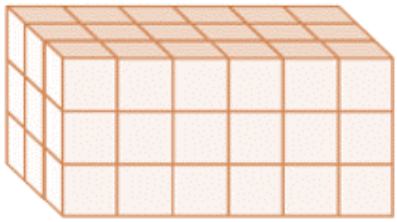
To find the volume of a prism you first find the area of the base of the prism, then multiply by the height of the prism.

If I start with a base area of 2 units x 3 units, or 6 square units, that means the height of the prism must be 6 units since 6 square units x 6 units = 36 cubic units.

If I start with a base area of 4 units x 9 units, or 36 square units, then the height of the prism must be 1 unit since 36 square units x 1 unit = 36 cubic units.

ITEM 187

In this right rectangular prism, each unit cube has an edge length of 1 unit.



Part A
What is the volume of the prism? Show your work or give an explanation.

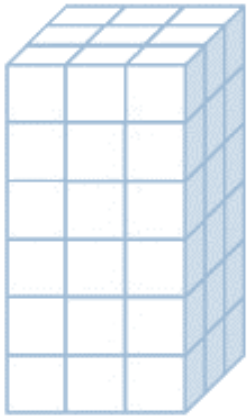
The volume of the prism is 54 cubic units.
The area of the base is 6 units x 3 units, or 18 square units.
18 square units x 3 units in height = 54 cubic units

Part B
A second right rectangular prism has 18 fewer unit cubes than the prism shown. What could be the dimensions of this second prism? Show your work or give an explanation.

If the second right rectangular prism has 18 fewer unit cubes than the prism shown, that means the volume of this second prism is 36 cubic units (54 – 18 = 36). Since there are 18 cubic units in the top layer of the prism shown, the second prism could be just the two bottom layers with a length of 6 units, a width of 3 units, and a height of 2 units.

ITEM 188

In this right rectangular prism, each unit cube has an edge length of 1 unit.



Part A
What is the volume of the prism? Show your work or give an explanation.

The volume of the prism is 54 cubic units.
The area of the base is 3 units x 3 units, or 9 square units.
9 square units x 6 units in height = 54 cubic units

Part B
A second right rectangular prism has 9 fewer unit cubes than the prism shown. What could be the dimensions of this second prism? Show your work or give an explanation.

If the second right rectangular prism has 9 fewer unit cubes than the prism shown, that means the volume of this second prism is 45 cubic units (54 – 9 = 45). Since there are 9 cubic units in the top layer of the prism shown, the second prism could look like the prism shown without the top layer. Its dimensions could be 3 units in length, 3 units in width, and 5 units in height.

Measurement and Data
5.MD.C.05b
Items 189 - 194

ITEM 189

All candles at the Candle Company are shaped like rectangular prisms, have a volume of 360 cubic inches, and are 6 inches tall. Which table shows correct length and width dimensions for these candles?

A.

Length (in)	Width (in)
6	6
12	12
18	18

B.

Length (in)	Width (in)
10	6
12	5
15	4

C.

Length (in)	Width (in)
12	6
18	4
24	3

D.

Length (in)	Width (in)
20	18
24	15
36	10

ITEM 190

Makayla has a jewelry box that is 4 inches long, 6 inches wide, and 2 inches tall. What is the volume, in cubic inches, of the jewelry box?

A. 12 cubic inches

B. 20 cubic inches

C. 26 cubic inches

D. 48 cubic inches

ITEM 191

A shoebox has a height of 4 inches, a width of 7 inches, and a length of 12 inches. What is the volume of the shoebox?

A. $23\ in^3$

B. $46\ in^3$

C. $320\ in^3$

D. $336\ in^3$

ITEM 192

A right rectangular prism has a square base with edge lengths of 15 centimeters. The height of the prism is 35 centimeters. What is the volume of the prism?

A. 525 cubic centimeters

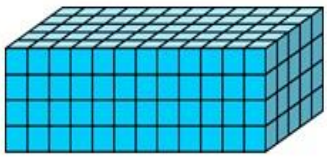
B. 3,375 cubic centimeters

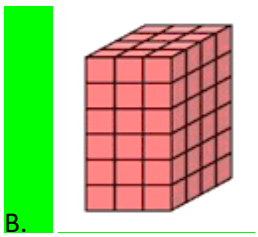
C. 7,875 cubic centimeters

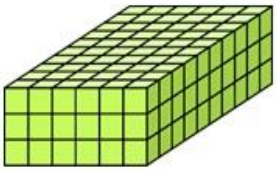
D. 18,375 cubic centimeters

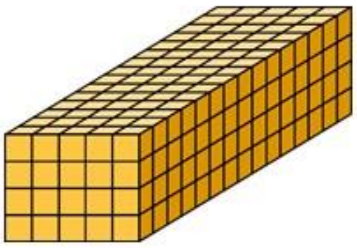
ITEM 193

Which of the following rectangular prisms has a volume of 72 cubic cm?

A. 

B. 

C. 

D. 

ITEM 194

A puzzle box has a height of 27 centimeters and a base area of 220 square centimeters. What is the volume, in cubic centimeters, of the puzzle box?

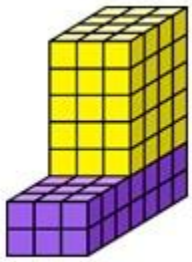
Enter the correct number in the blank.

5940

Measurement and Data
5.MD.C.05c
Item 195

ITEM 195

Each cube in the figure below has edges that are 1 mm in length. What is the volume of the figure?



A. 3,150 cubic mm

B. 2,520 cubic mm

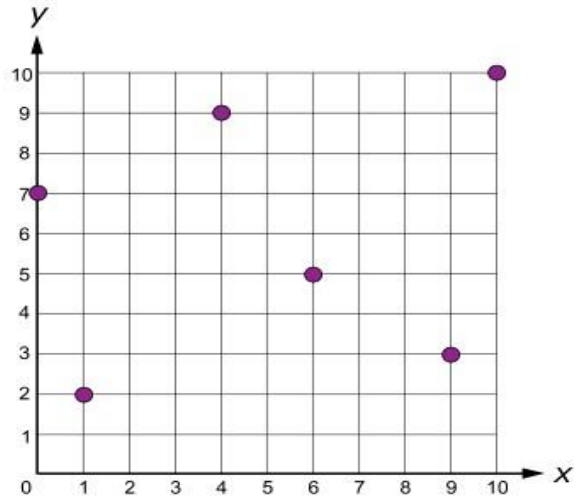
C. 102 cubic mm

D. 24 cubic mm

Geometry
5.G.A.01
Items 196 – 206

ITEM 196

Six points are plotted on the coordinate plane.



Which **three** ordered pairs correspond to points graphed on this coordinate plane?

A. (1, 2)

B. (7, 0)

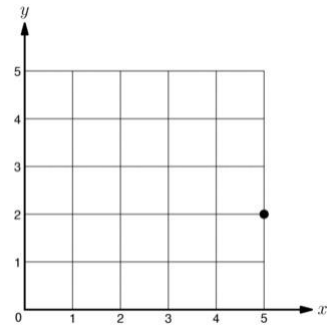
C. (6, 5)

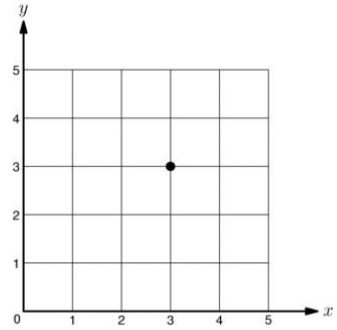
D. (9, 3)

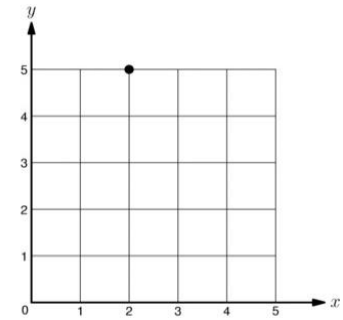
E. (9, 4)

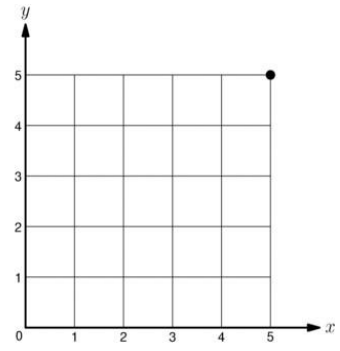
ITEM 197

Which graph has a point with coordinates of (5, 2)?

A. 

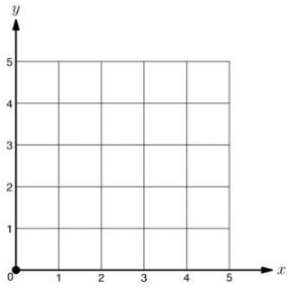
B. 

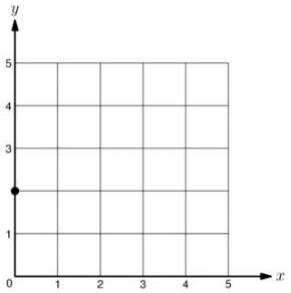
C. 

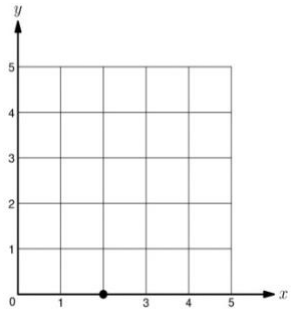
D. 

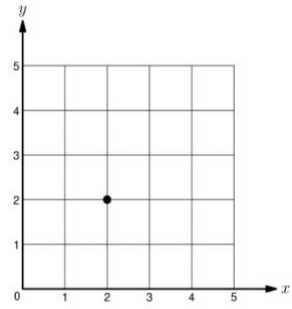
ITEM 198

Which graph has a point plotted at the location (2, 0)?

A. 

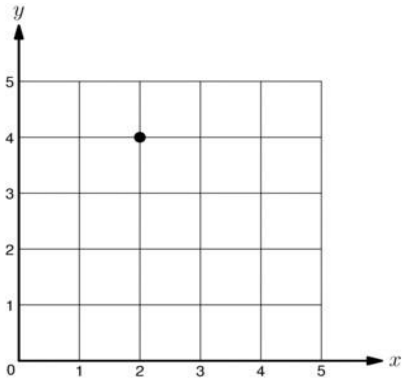
B. 

C. 

D. 

ITEM 199

What ordered pair describes the location of the point plotted on the coordinate plane?



A. (2, 2)

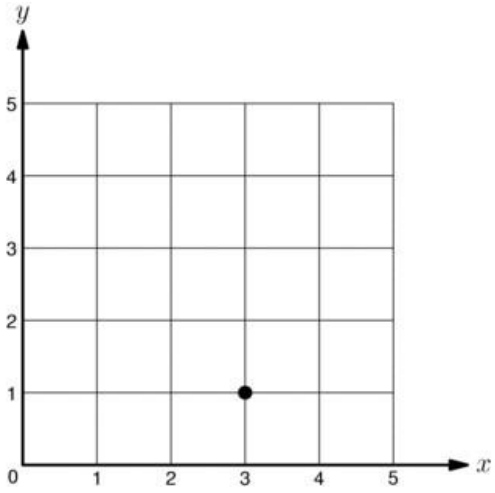
B. (2, 4)

C. (4, 2)

D. (4, 4)

ITEM 200

What ordered pair describes the location of the point plotted on the coordinate plane?



A. (1, 1)

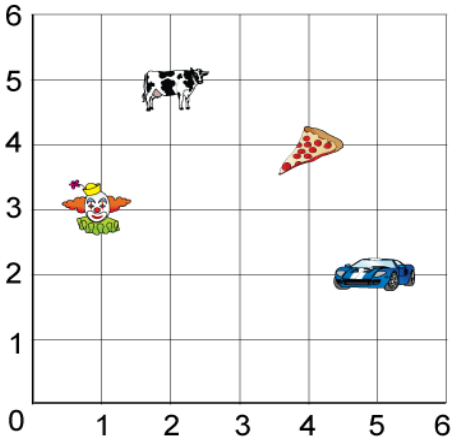
B. (1, 3)

C. (3, 1)

D. (3, 3)

ITEM 201

Four objects are shown on this grid.



What are the coordinates of the cow?

A. (1, 2)

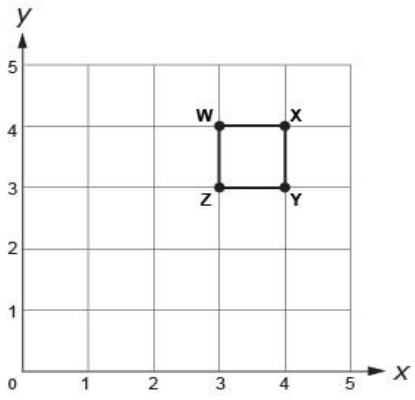
B. (2, 1)

C. (2, 5)

D. (5, 2)

ITEM 202

What point is located at (3, 4)?



A. Point *W*

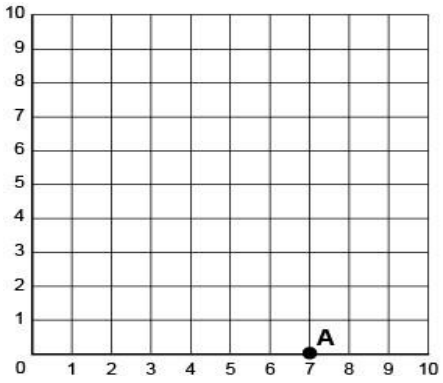
B. Point *X*

C. Point *Y*

D. Point *Z*

ITEM 203

What are the coordinates for the location of point A?



A. (0, 7)

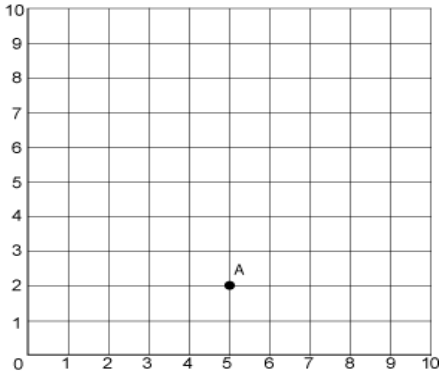
B. (1, 7)

C. (7, 0)

D. (7, 1)

ITEM 204

What are the coordinates of point A?



A. (8, 5)

B. (2, 5)

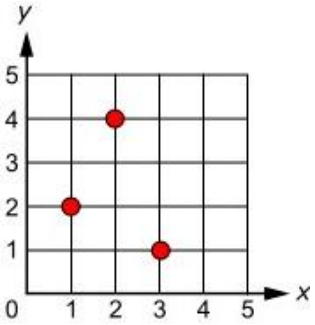
C. (5, 8)

D. (5, 2)

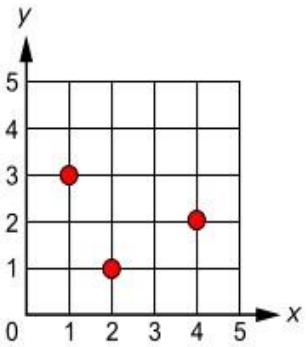
ITEM 205

Which coordinate grid shows the points (1, 2), (2, 4), and (3, 1) graphed correctly?

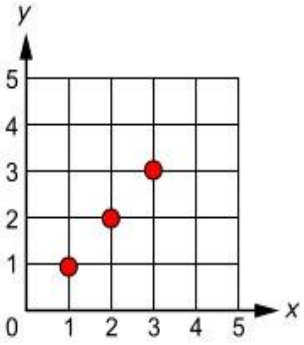
A.



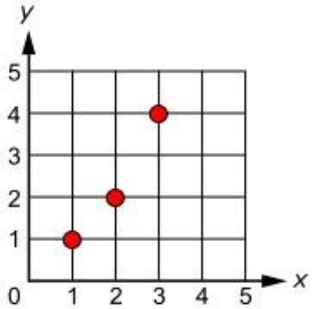
B.



C.



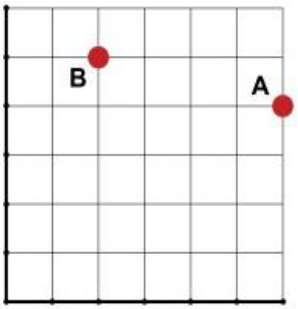
D.



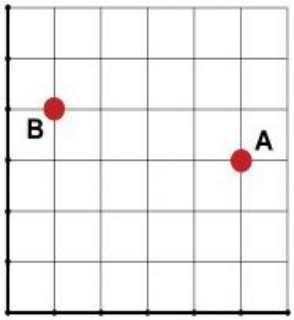
ITEM 206

Which graph shows point A at (4, 6) and point B at (5, 2)?

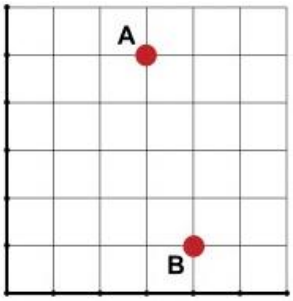
A.



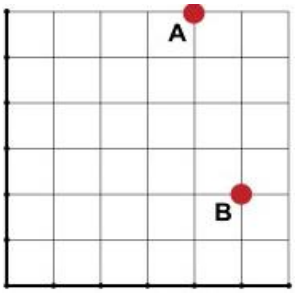
B.



C.



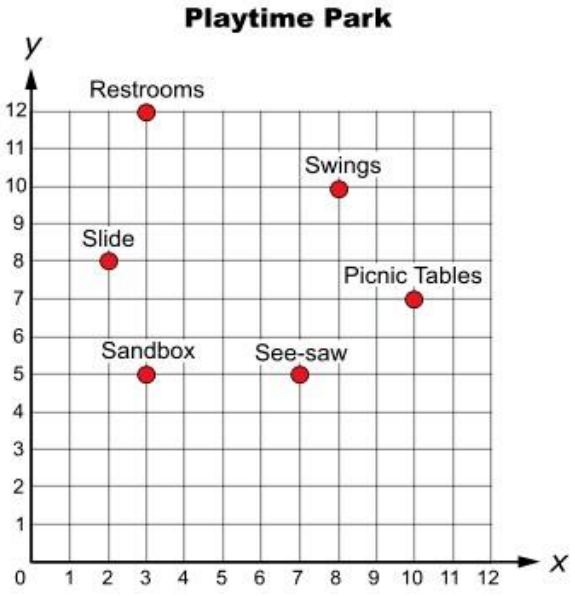
D.



Geometry
5.G.A.02
Items 207 – 208

ITEM 207

Which **three** ordered pairs represent locations plotted on the map of Playtime Park?



A. (5, 3)

B. (7, 5)

C. (7, 10)

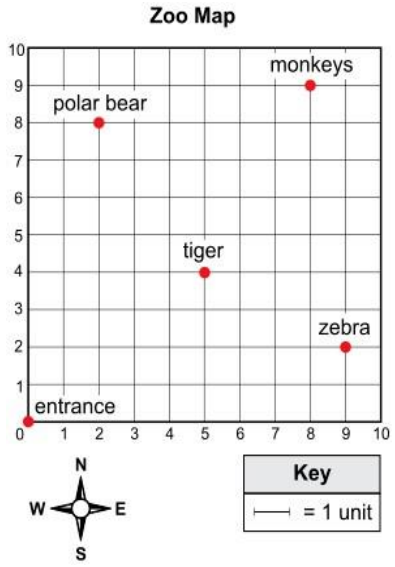
D. (2, 8)

E. (12, 3)

F. (10, 7)

ITEM 208

The map shows where different animals at the zoo are located in relation to the zoo entrance.



Which statement describes where the zebra is in relation to the zoo entrance?

A. The zebra is 2 units east and 9 units north of the entrance.

B. The zebra is 9 units east and 2 units north of the entrance.

C. The zebra is 10 units east and 3 units north of the entrance.

D. The zebra is 3 units east and 10 units north of the entrance.

Geometry
5.G.B.03
Items 209 – 211

ITEM 209

What is **true** of every rhombus that is also **true** of every parallelogram?

A. A rhombus has right angles.

B. A rhombus has all equal sides.

C. A rhombus has no perpendicular lines.

D. A rhombus has two pairs of parallel sides.

ITEM 210

Which figure can always be classified as a rectangle?

A. Parallelogram

B. Quadrilateral

C. Square

D. Rhombus

ITEM 211

Which explanation about figures is correct?

A. Only some rhombuses are parallelograms. Parallelograms have 2 pairs of parallel sides.

B. All rhombuses are parallelograms. Parallelograms have 2 pairs of parallel sides.

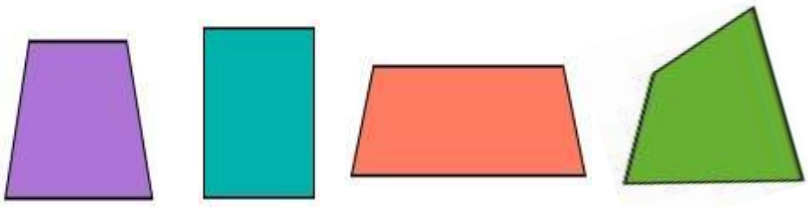
C. Only some rhombuses are parallelograms. Parallelograms have exactly 1 pair of parallel sides.

D. All rhombuses are parallelograms. Parallelograms have exactly 1 pair of parallel sides.

Geometry
5.G.B.04
Items 212 – 216

ITEM 212

Which one of the following quadrilaterals is not a trapezoid?



A. The purple quadrilateral

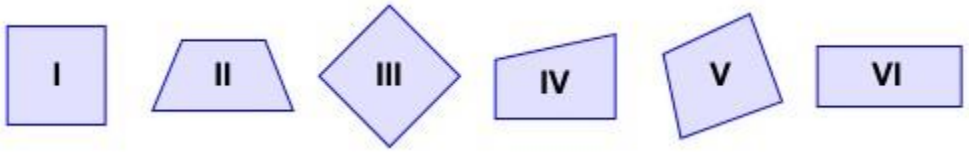
B. The blue quadrilateral

C. The red quadrilateral

D. The green quadrilateral

ITEM 213

Which group of quadrilaterals appears to be parallelograms?



A. I, III, V

B. I, III, VI

C. I, III, IV, VI

D. I, II, IV, VI

ITEM 214

Levi drew a shape with the following properties:

- more than 3 sides
- exactly 1 pair of parallel sides
- exactly 2 pairs of sides with equal lengths

Which shape could **not** be Levi's shape?

A. parallelogram

B. pentagon

C. hexagon

D. octagon

ITEM 215

Which figure is always a parallelogram but not always a rectangle?

A. square

B. rhombus

C. trapezoid

D. quadrilateral

ITEM 216

Which statement is **true**?

A. All hexagons are triangles because they have at least 3 sides.

B. All octagons are polygons because they have at least 3 sides.

C. All parallelograms are rectangles because they have 2 sets of parallel sides.

D. All rhombi are squares because they have 4 sides that are all the same length.