Name _____ Date _____ Class _____

6.RP.2

SELECTED RESPONSE

Select the correct answer.

1. A 5-pound bag of cat food costs $11.25. What is the unit price of the cat food in dollars per pound?

   (A) $0.44 per pound
   (B) $2.25 per pound
   (C) $6.25 per pound
   (D) $56.25 per pound

2. Three pounds of fish costs $14.97 at the market. What is the unit price of the fish in dollars per pound?

   (A) $4.99
   (B) $11.97
   (C) $14.97
   (D) $44.91

3. Bill drove 315 miles in 7 hours, Alisha drove 235 miles in 5 hours, and Joanne drove 414 miles in 9 hours. Which person drove at an average speed of 47 miles per hour?

   (A) Alisha
   (B) Joanne
   (C) Bill
   (D) Both Joanne and Bill

Select all correct answers.

4. For each store, calculate the unit price per ounce of potato chips. Which stores sell potato chips at a unit rate of $0.17 per ounce?

Potato Chip Prices		
Store	**Cost**	**Ounces**
A	$1.69	8
B	$2.99	16
C	$3.74	20
D	$4.08	24
E	$5.44	32

   (A) Store A
   (B) Store B
   (C) Store C
   (D) Store D
   (E) Store E

5. Which of the rates shown here correspond to a unit rate of $6 per sandwich?

   (A) Spending $42 to buy 7 sandwiches
   (B) Spending $108 to buy 18 sandwiches
   (C) Spending $40 to buy 5 sandwiches
   (D) Spending $100 to buy 16 sandwiches
   (E) Spending $42 to buy 6 sandwiches

Match each quantity with the correct unit rate.

____ 6. A 30-ounce bottle of fruit juice costs $4.80.

____ 7. 16 ounces of ground turkey costs $2.40.

____ 8. A 32-ounce bottle of laundry detergent costs $6.72.

____ 9. A 20-ounce bag of potato chips costs $3.80.

____ 10. A 32-ounce bottle of shampoo costs $5.76 per ounce.

A $0.15 per ounce
B $0.16 per ounce
C $0.17 per ounce
D $0.18 per ounce
E $0.19 per ounce
F $0.20 per ounce
G $0.21 per ounce
H $0.22 per ounce

Name _____ Date _____ Class_____

6.RP.3B

SELECTED RESPONSE

Select the correct answer.

1. If 4 gallons of milk cost $16.76, how much would 7 gallons of milk cost?
   - (A) $4.19
   - (B) $29.33
   - (C) $67.04
   - (D) $117.32

2. John drives to the beach, which is 270 miles away. In 2 hours, he drives 120 miles. If he continues at that speed, how long will it take him to get to the beach?
   - (A) 2 hours
   - (B) 2.5 hours
   - (C) 4 hours
   - (D) 4.5 hours

3. The yard care staff can mow 45 lawns in a 10-hour work day. Each of the 9 workers can mow the same number of lawns per hour. How many lawns can one worker mow per hour?
   - (A) 0.5 lawn per hour
   - (B) 0.9 lawn per hour
   - (C) 4.5 lawns per hour
   - (D) 5 lawns per hour

4. A car travels 304 miles on 16 gallons of gas. How far can the car go on 5 gallons?
   - (A) 3.2 miles
   - (B) 60.8 miles
   - (C) 80 miles
   - (D) 95 miles

5. The last time Robert filled up his car with gas, he paid $24.50 for 7 gallons. This time, he needs 15 gallons. If the price is the same, how much will he pay?
   - (A) $52.50
   - (B) $32.50
   - (C) $11.43
   - (D) $3.50

CONSTRUCTED RESPONSE

6. A moving company has one large truck for furniture and one small truck for boxes. During one move, it took the large truck 4 hours to travel 180 miles. It took the small truck 3 hours to make the same trip.
   a. Assume both trucks traveled at constant speeds. How fast did each truck travel?

   _____

   _____

   b. The following week, the company was hired for a 225-mile move. If each truck traveled at the same speed it had the previous week, how long did the trip take for each truck?

   _____

   _____

   _____

   _____

7. Two shoppers bought meat at a supermarket deli. The first bought 3 pounds of meat for $9.87. The second bought 4 pounds of meat for $16.76. Neither of the shoppers had a coupon or a discount card. Can you tell if both shoppers bought the same kind of meat? Explain why or why not.

   _____

   _____

   _____

   _____

   _____

   _____

Name _____ Date _____ Class_____

6.RP.3c

SELECTED RESPONSE

Select the correct answer.

1. What is 5% of 200?

   (A) $\frac{1}{40}$

   (B) 10

   (C) 40

   (D) 1,000

2. What is 120% of 50?

   (A) 2.4

   (B) 6

   (C) 60

   (D) 6,000

3. A 15% tip on a diner bill is $2.55. How much is the bill?

   (A) $0.17

   (B) $0.38

   (C) $17.00

   (D) $38.25

4. 56.25% of what number is 168.75?

   (A) 3

   (B) 94.9219

   (C) 300

   (D) 9,492.19

Select all correct answers.

5. Choose all statements that are true.

   (A) 15% of 15 is 1.

   (B) 5% of 50 is 10.

   (C) 10% of 100 is 10.

   (D) 2% of 100 is 5.

   (E) 3% of 200 is 6.

Match each library with its total number of books.

____ 6. 30 books represent 2% of the total books at library 1.

____ 7. 45 books represent 5% of the total books at library 2.

____ 8. 60 books represent 1% of the total books at library 3.

____ 9. 75 books represent 10% of the total books at library 4.

____ 10. 90 books represent 3% of the total books at library 5.

A 750 books
B 900 books
C 1,500 books
D 2,000 books
E 3,000 books
F 6,000 books

CONSTRUCTED RESPONSE

11. The state sales tax rate for North Carolina is 4.75%. The state sales tax rate for South Carolina is 6%. Shandra would like to buy a cookbook with a list price of $20.

    a. If Shandra buys this book in North Carolina, how much would she pay for sales tax?

    _____

    b. If she buys the same book on a trip to South Carolina, how much more sales tax would she pay compared to North Carolina?

    _____

Name _____ Date _____ Class _____

6.RP.3d

SELECTED RESPONSE

Select the correct answer.

1. Heather's desk is 3 feet long. About how long is it in meters?
   Use 1 foot ≈ 0.305 meter.
   - (A) 0.00915 meter
   - (B) 0.9015 meter
   - (C) 0.915 meters
   - (D) 9.15 meters

2. A large container at a party holds 9 liters of lemonade. About how many gallons of lemonade does the container hold? Use 1 gallon ≈ 3.79 liters.
   - (A) 0.4 gallon
   - (B) 2.4 gallons
   - (C) 12.8 gallons
   - (D) 34.1 gallons

3. Joan mails a package that weighs 140 grams. About how many ounces is the package? Use 1 ounce ≈ 28.4 grams.
   - (A) 0.2 ounce
   - (B) 4.9 ounces
   - (C) 168.4 ounces
   - (D) 403.3 ounces

4. A printing company makes plastic banners 15 feet long by 6 feet wide. An overseas customer wants to know about how many square meters the banner is. Use 1 foot ≈ 0.305 meter.
   - (A) 8.37 square meters
   - (B) 27.5 square meters
   - (C) 90.0 square meters
   - (D) 900 square meters

Select all correct answers.

5. Choose all measurements that are equivalent to 45 meters.
   - (A) 450 centimeters
   - (B) 4,500 centimeters
   - (C) 0.045 kilometer
   - (D) 0.45 kilometer
   - (E) 4,500 millimeters

Select the correct answer for each lettered part.

6. John knows he can safely lift 30 pounds without help. He needs to move the following packages. Can he lift each safely without help? Use the following:
   1 pound ≈ 0.454 kilogram
   1 ounce ≈ 28.4 grams
   1 kilogram = 1,000 grams

a. 9.08 kilograms	○ Yes	○ No
b. 9,080 grams	○ Yes	○ No
c. 460 ounces	○ Yes	○ No
d. 46 kilograms	○ Yes	○ No

CONSTRUCTED RESPONSE

7. A chemist has a beaker with 4 fluid ounces of a solution. The chemist needs 500 milliliters for an experiment. About how many more milliliters does the chemist need? Use 1 fluid ounce ≈ 29.6 milliliters and show your work.

_____

_____

_____

_____

_____

Name _____ Date _____ Class_____

6.EE.1

SELECTED RESPONSE

Select the correct answer.

1. Which exponential expression equals $5 \times 5 \times 5 \times 5 \times 5 \times 5$?
   - (A) 5^5
   - (B) 5^6
   - (C) 6^5
   - (D) 5^7

2. Which is the expanded form of 7^5?
   - (A) $7 \times 7 \times 7 \times 7 \times 7 \times 7$
   - (B) $5 \times 5 \times 5 \times 5 \times 5 \times 5 \times 5$
   - (C) $7 \times 7 \times 7 \times 7$
   - (D) $7 \times 7 \times 7 \times 7 \times 7$

3. Which is the expanded form of $3^2 \times 3^5$?
   - (A) $3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3$
   - (B) $9 \times 9 \times 9 \times 9 \times 9 \times 9 \times 9 \times 9 \times 9$
   - (C) $3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3$
   - (D) $9 \times 9 \times 9 \times 9 \times 9 \times 9 \times 9$

4. Which is the value of 6^4?
   - (A) 216
   - (B) 1,296
   - (C) 4,096
   - (D) 7,776

Select all correct answers.

5. Which of the following expressions is equal to 64?
   - (A) 2^4
   - (B) 8^2
   - (C) 6^3
   - (D) 2^6
   - (E) 4^3

Match each exponential expression with its expanded form.

____ 6. $2^3 \times 5^4$

____ 7. $9^3 \times 11^5$

____ 8. 12^5

____ 9. $2^4 \times 5^4$

____ 10. $9^4 \times 11^5$

A $2 \times 2 \times 2 \times 2 \times 5 \times 5 \times 5 \times 5$

B $12 \times 12 \times 12 \times 12 \times 12 \times 12 \times 12$

C $9 \times 9 \times 9 \times 9 \times 11 \times 11 \times 11 \times 11 \times 11$

D $5 \times 5 \times 5 \times 5 \times 5 \times 3 \times 3 \times 3$

E $5 \times 5 \times 5 \times 2 \times 2$

F $9 \times 9 \times 9 \times 11 \times 11 \times 11 \times 11 \times 11$

G $2 \times 2 \times 2 \times 5 \times 5 \times 5 \times 5$

H $12 \times 12 \times 12 \times 12 \times 12$

CONSTRUCTED RESPONSE

11. Louis evaluated the expression $3^5 + 6^3$, but he made a mistake. His work is shown. Identify Louis's mistake and show how to find the correct answer.

$$3^5 + 6^3 = 5 \times 5 \times 5 + 3 \times 3 \times 3 \times 3 \times 3 \times 3$$
$$= 854$$

_____

_____

Name _____ Date _____ Class_____

6.EE.2a

SELECTED RESPONSE

Select the correct answer.

1. Which expression below represents "k more than 8"?

   (A) $8k$

   (B) $8 + k$

   (C) $8 - k$

   (D) $\frac{8}{k}$

2. Which statement below could be represented by the expression $7 - t$?

   (A) t less than 7

   (B) 7 times t

   (C) t more than 7

   (D) 7 less than t

3. Which statement below CANNOT be represented by the expression $t - 16$?

   (A) 16 less than t

   (B) t decreased by 16

   (C) t less than 16

   (D) 16 subtracted from t

4. Marcus and Judy are picking apples. At the end of the day, Marcus has a apples. Judy has 5 times as many apples as Marcus. How many apples does Judy have in terms of a?

   (A) $a - 5$

   (B) $5 + a$

   (C) $\frac{5}{a}$

   (D) $5a$

Select all correct answers.

5. Which of the following statements could be represented by the expression $d - 10$?

   (A) 10 less than d

   (B) 10 more than d

   (C) d decreased by 10

   (D) d less than 10

   (E) d minus 10

   (F) d increased by 10

6. Which of the following indicates that the operation is addition?

   (A) 8 plus j

   (B) k fewer than 10

   (C) r increased by 7

   (D) 14 divided by n

   (E) 11 decreased by h

   (F) 6 more than s

Select the correct answer for each lettered part.

7. Choose the operation that is indicated by each statement.

   a. 5 more than n ○ + ○ – ○ × ○ ÷

   b. 11 fewer than w ○ + ○ – ○ × ○ ÷

   c. k divided by 4 ○ + ○ – ○ × ○ ÷

   d. y less than 8 ○ + ○ – ○ × ○ ÷

   e. 2 times r ○ + ○ – ○ × ○ ÷

   f. 9 increased by g ○ + ○ – ○ × ○ ÷

Name _____ Date _____ Class_____

6.EE.2b

SELECTED RESPONSE

Select the correct answer.

1. Which expression is the product of two factors?

   (A) $8(5 + n)$

   (B) $2 + h$

   (C) $\frac{x}{3}$

   (D) $t - 9$

2. In the expression $n + 23$, what is 23?

   (A) A coefficient

   (B) A factor

   (C) A term

   (D) A sum

3. Which expression is a quotient?

   (A) $9r$

   (B) $\frac{b}{12}$

   (C) $15 + d$

   (D) $m - 4$

4. Which is the coefficient in the expression $23y + 5$?

   (A) y

   (B) 5

   (C) $23y$

   (D) 23

Select the correct answer for each lettered part.

5. Identify each expression as a sum, a difference, a product, or a quotient.

a. $4t$	○ Sum	○ Difference	○ Product	○ Quotient
b. $6 - u$	○ Sum	○ Difference	○ Product	○ Quotient
c. $f + 10$	○ Sum	○ Difference	○ Product	○ Quotient
d. $27(v + 3)$	○ Sum	○ Difference	○ Product	○ Quotient
e. $42 + k$	○ Sum	○ Difference	○ Product	○ Quotient
f. $\frac{t}{13}$	○ Sum	○ Difference	○ Product	○ Quotient

CONSTRUCTED RESPONSE

6. Write the expression represented by the statement “7 times the sum of 2 and x.” Identify the factors in the expression.

_____

_____

_____

7. Identify two sums in the expression $14 + b + 27d$. Identify the terms of each.

_____

_____

Name _____ Date _____ Class _____

6.EE.2c

SELECTED RESPONSE

Select the correct answer.

1. Helen bought notebooks and pencils for school. The number of pencils she bought is given by $6(n - 3)$, where n is the number of notebooks she bought. How many pencils did Helen buy if she bought 5 notebooks?

   (A) 2 pencils

   (B) 12 pencils

   (C) 27 pencils

   (D) 48 pencils

2. In what order should the operations be performed to evaluate $6x^2 - 2$ at $x = 3$?

   (A) First, multiply 6 by 3. Then, square the result. Finally, subtract 2 from the result.

   (B) First, find 3^2. Then, subtract 2 from the result. Finally, multiply the result by 6.

   (C) First, find 3^2. Then, multiply the result by 6. Finally, subtract 2 from the result.

   (D) First, multiply 6 by 3. Then, subtract 2 from the result. Finally, square the result.

3. What is the value of the expression $\frac{8}{n} - \frac{1}{2}n^2$ at $n = 4$?

   (A) -6

   (B) -2

   (C) 2

   (D) 24

4. The area of a triangle is given by the formula $A = \frac{1}{2}bh$. What is the area of the triangle if $b = 5$ and $h = 4$?

   (A) 2 (C) 4.5

   (B) 2.5 (D) 10

Select all correct answers.

5. Which expressions are equal to 41 when evaluated at $d = 4$?

   (A) $9d + 5$

   (B) $7 + 3d^2$

   (C) $10d - 1$

   (D) $11d - \frac{12}{d}$

   (E) $d^3 - 23$

CONSTRUCTED RESPONSE

6. A rectangular box with dimensions ℓ by w by h has a surface area A given by $A = 2\ell w + 2\ell h + 2wh$. Its volume V is given by $V = \ell wh$. If the dimensions of the box are given as 5 feet by 3 feet by 2.5 feet, what is the surface area and volume of the box? Show your work.

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

7. Evaluate the expression $\frac{1}{4}y + 10 + y^2$ for $y = 8$.

   _____

   _____

Name _____ Date _____ Class_____

6.EE.3

SELECTED RESPONSE

Select the correct answer.

1. Which expression is equivalent to $12x - 3x$?

   (A) $x(12 - 3)$

   (B) $8x$

   (C) $3(3x - x)$

   (D) 9

2. What property is used to say that the expression $5x + 7 - 2x$ is equivalent to the expression $5x - 2x + 7$?

   (A) Commutative property of addition

   (B) Commutative property of multiplication

   (C) Associative property of addition

   (D) Distributive property

3. What expression is equivalent to the expression $(1 + 4x) + 2x$?

   (A) $7x$

   (B) $5x + 2x$

   (C) $1 + 6x$

   (D) $x(4 + 2)$

4. The expression $11x^3 - 6y + 2x^3$ is simplified as follows. Which property is NOT used to simplify the expression?

$$\begin{aligned} 11x^3 - 6y + 2x^3 &= 11x^3 + 2x^3 - 6y \\ &= x^3(11 + 2) - 6y \\ &= x^3(13) - 6y \\ &= 13x^3 - 6y \end{aligned}$$

   (A) Commutative property of addition

   (B) Commutative property of multiplication

   (C) Associative property of multiplication

   (D) Distributive property

Select all correct answers.

5. The expression $(y + 14x) - 5x - x^2$ is simplified as follows. Which properties of operations are used to simplify the expression?

$$\begin{aligned} (y + 14x) - 5x - x^2 &= y + (14x - 5x) - x^2 \\ &= y + x(14 - 5) - x^2 \\ &= y + x(9) - x^2 \\ &= y + 9x - x^2 \end{aligned}$$

   (A) Commutative property of addition

   (B) Commutative property of multiplication

   (C) Associative property of addition

   (D) Associative property of multiplication

   (E) Distributive property

CONSTRUCTED RESPONSE

6. a. Use the distributive property to write $23y - (7x - 2y) + x$ without parentheses.

   _____

   _____

   _____

   b. Use the commutative property of addition to collect like terms.

   _____

   _____

   _____

   c. Simplify the result from part b.

   _____

   _____

7. Simplify the expression $(2x + 3y) + y$ using the properties of operations. Show your work.

   _____

   _____

Name _____ Date _____ Class_____

6.EE.4

SELECTED RESPONSE

Select the correct answer.

1. Which expression is NOT equivalent to the expression $11 - (3x + 2)$?

   (A) $11 - 3x - 2$

   (B) $9 - 3x$

   (C) $11 - 3x + 2$

   (D) $11 + (-3x - 2)$

2. Which expression is equivalent to $12x - 3(x + 2)$?

   (A) $12x + 6$

   (B) $12x - 6$

   (C) $9x + 6$

   (D) $9x - 6$

3. Which pair of expressions are equivalent?

   (A) $4x - 2 + 5x$ and $7x$

   (B) $(11 + 3x) - x$ and $11 + 2x$

   (C) $12(x - 2)$ and $12x - 2$

   (D) $9x(4)$ and $13x$

Select all correct answers.

4. Which expressions are equivalent to the expression $2x - (-3x + 8y) + 8$?

   (A) $2x + (3x + 8y) + 8$

   (B) $2x + (3x - 8y) + 8$

   (C) $(2x + 3x) - 8y + 8$

   (D) $3x + 8$

   (E) $5x - 8y + 8$

Match each expression with an equivalent expression.

____ 5. $3x - 2 + 8x$

____ 6. $4x - (2x + 1)$

____ 7. $11(x - 1) + 2$

____ 8. $4(3x)$

____ 9. $-13x + 5x$

A $12x$

B $2x - 1$

C $7x$

D $11x - 9$

E $11x - 2$

F $2x + 1$

G $-8x$

CONSTRUCTED RESPONSE

10. Blaine and Tanya are selling pumpkins and tomatoes at a farm stand. Blaine sells p pumpkins and t tomatoes on the first day. The second day he sells double what he sells the first day. Over both days, Tanya sells triple what Blaine sells on the first day.

    a. Write an expression for the total number of pumpkins and tomatoes Blaine sold both days.

    _____

    b. Write an expression for the total number of pumpkins and tomatoes Tanya sold both days.

    _____

    c. Did Blaine and Tanya sell the same amount? Explain.

    _____

Name _____ Date _____ Class _____

6.EE.6

SELECTED RESPONSE

Select the correct answer.

1. There are red and blue marbles in a bowl. There are twice as many blue marbles as red marbles. What expression represents the number of blue marbles?

   (A) $2b$, where b is the number of blue marbles

   (B) $2r$, where r is the number of red marbles

   (C) $r + 2$, where r is the number of red marbles

   (D) $\frac{b}{2}$, where b is the number of blue marbles

2. x is 4 less than a number y. What expression represents the value of x?

   (A) $x - 4$

   (B) $y - 4$

   (C) $x + 4$

   (D) $y + 4$

3. Kyle starts with $15.00 and saves $3.50 each day. What expression represents the total amount Kyle saves?

   (A) $3.50

   (B) $15.00

   (C) $3.5t + 15$, where t is the number of days

   (D) $15t + 3.5$, where t is the number of days

4. The product of two different numbers is 132. If one of the numbers is x, what expression represents the value of the other number?

   (A) $\frac{132}{x}$

   (B) $132x$

   (C) $132 - x$

   (D) $x + 132$

Select all correct answers.

5. Joan has 3 fewer dogs than rabbits. If r is the number of rabbits Joan has, which expressions represent the total number of animals Joan has?

   (A) r

   (B) $r + (r - 3)$

   (C) $r - 3$

   (D) $2r - 3$

   (E) $r + (r + 3)$

CONSTRUCTED RESPONSE

6. Paulo and Marie are collecting quarters. The number of quarters Paulo has is 3 times the quantity of 5 fewer than the number of quarters Marie has. Write an expression for the number of quarters Paulo in terms of the number of quarters Marie has. Define any variables used.

   _____

   _____

   _____

   _____

7. The value of x is 3 more than half the value of y.

   a. Write an expression for the value of x in terms of y.

   _____

   b. What is the value of x if $y = 7$? Show your work.

   _____

   _____

   _____

   _____

Name _____ Date _____ Class _____

6.EE.7

SELECTED RESPONSE

Select the correct answer.

1. Which of these equations has the same solution as the equation $x + 5 = 12$?

   (A) $x + 5 = 7$

   (B) $x + 8 = 15$

   (C) $x + 7 = 12$

   (D) $x + 12 = 20$

2. Thomas put $\frac{1}{4}$ of the c coins he had in his pocket into the jar under his bed. He put 16 coins into the jar. The equation that models this situation is $\frac{1}{4}c = 16.$ How many coins did Thomas have in his pocket?

   (A) 4 coins

   (B) 12 coins

   (C) 20 coins

   (D) 64 coins

3. What is the procedure for solving the equation $\frac{1}{2}x = 16$?

   (A) Add $\frac{1}{2}$ to both sides of the equation.

   (B) Subtract $\frac{1}{2}$ from both sides of the equation.

   (C) Multiply both sides of the equation by 2.

   (D) Multiply both sides of the equation by $\frac{1}{2}$.

4. There are 6 blue shirts and g green shirts in a drawer. There are 11 shirts total in the drawer. What equation models this situation?

   (A) $6 + g = 11$

   (B) $6g = 11$

   (C) $6 - g = 11$

   (D) $\frac{1}{6}g = 11$

CONSTRUCTED RESPONSE

5. What is the solution of the equation $3 + x = 9$? Show your work.

   _____

   _____

   _____

6. Sally measured the height of a flower growing in her garden. The flower was $3\frac{1}{4}$ inches tall. Over the next week, the flower grew h inches and measured $4\frac{1}{8}$ inches tall. Write an equation that models the situation. Then solve the equation and state how much the flower grew during the week.

   _____

   _____

   _____

7. The sum of 6 and another number is 23. Write and solve an equation to find the other number. Show your work.

   _____

   _____

   _____

Name _____ Date _____ Class_____

6.SP.2

SELECTED RESPONSE

Select the correct answer.

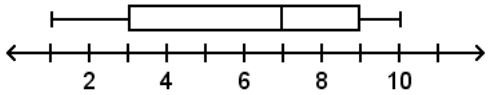
1. The test scores for a class are shown. What is the average test score?

   79, 80, 92, 92, 81, 100, 88, 98, 71, 100, 91, 90

   (A) 71 (C) 90.5

   (B) 88.5 (D) 92

2. Find the interquartile range of the data displayed in the box plot shown.



   (A) 9 (C) 6

   (B) 7 (D) 3

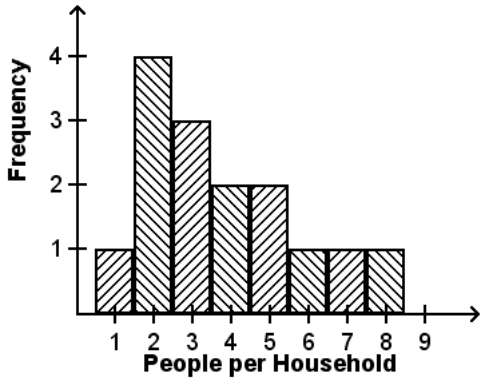
3. What is the median of the data set shown?

   34, 86, 12, 56, 21, 98, 72, 34, 21, 34, 45, 23, 97, 44

   (A) 34 (C) 44

   (B) 39 (D) 53

4. The number of people per household for a street with 15 houses is shown. What statement best describes the shape of the distribution of the data set?



   (A) Skewed right

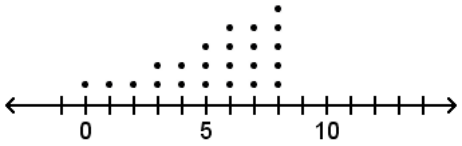
   (B) Skewed left

   (C) Symmetric

   (D) Has two peaks

Select all correct answers.

5. Which of the following statements accurately describe the data displayed in the dot plot shown?



   (A) The distribution is right skewed.

   (B) The distribution is left skewed.

   (C) The distribution is symmetric.

   (D) The mean is approximately 5.4.

   (E) The median is 6.

   (F) The mode is 0.

CONSTRUCTED RESPONSE

6. Gianna is keeping track of how much money she spends each week. Her data is shown.

   $75, $123, $36, $86, $57, $89, $41, $70, $148, $80

   a. Find the median of the data set. Show your work.

   _____

   _____

   _____

   _____

   _____

   b. Find the interquartile range of the data set. Show your work.

   _____

   _____

   _____

   _____

Name _____ Date _____ Class _____

6.SP.3

SELECTED RESPONSE

Select the correct answer.

1. The number of touchdowns scored by one football team in each game during a season is shown. What was the mean of the touchdowns the team scored during that season?

   2, 4, 1, 0, 4, 3, 2, 4, 5, 1, 0, 3, 6, 4, 2, 3

   (A) 2.75 touchdowns
   (B) 3 touchdowns
   (C) 3.14 touchdowns
   (D) 4 touchdowns

2. Jesse asked how many magazine subscriptions each house on his street had. These numbers are shown. What is the interquartile range of the data set?

   1, 0, 2, 3, 4, 1, 0, 0, 4, 1, 2, 2, 1

   (A) 0.5 subscription
   (B) 1 subscription
   (C) 2 subscriptions
   (D) 2.5 subscriptions

3. The number of showtimes for one movie over several days is shown. What is the mean absolute deviation?

   9, 6, 8, 9, 7, 4, 3, 5, 2, 4

   (A) 2.1 showtimes
   (B) 5.5 showtimes
   (C) 5.7 showtimes
   (D) 11.4 showtimes

Select all correct answers.

4. Which measures describe the variation in a data set?

   (A) Mean
   (B) Median
   (C) Mode
   (D) Mean absolute deviation
   (E) Interquartile range
   (F) Range

For the data set shown, match each measure of center or measure of variability with its value(s).

2, 6, 8, 3, 4, 6, 2, 6, 8, 5, 6, 2, 7, 8, 4, 3, 2, 7, 3, 4

_____ 5. Mean
_____ 6. Median
_____ 7. Mode(s)
_____ 8. Mean absolute deviation
_____ 9. Interquartile range
_____ 10. Range

A 4.8
B 3.5
C 1.9
D 2 and 6
E 4.5
F 6

CONSTRUCTED RESPONSE

11. The daily maximum temperatures, in degrees Fahrenheit, for one town during one week in summer are shown below.

    93, 99, 89, 76, 68, 97, 71

    a. Find the mean and the mean absolute deviation. Show your work. Round your answers to the nearest tenth of a degree.

    _____

    b. Explain the difference between the interpretations of the mean and the mean absolute deviation. Which is a measure of center? Which is a measure of spread?

    _____

12. The data set shows the number of hours Marissa jogs daily. What is the average number of hours that Marissa's jogging times vary from her mean jogging time? Show your work and round your final answer to the nearest hour.

    4, 4, 1, 6, 5, 4, 6, 3, 3

    _____

    _____

Name _____ Date _____ Class_____

6.SP.4

SELECTED RESPONSE

Select all correct answers.

1. Which values are needed to display a set of data using a box plot?

   Ⓐ Mean
   Ⓑ Median
   Ⓒ Mode
   Ⓓ Mean absolute deviation
   Ⓔ Lower quartile
   Ⓕ Upper quartile
   Ⓖ Greatest value
   Ⓗ Least value

Select the correct answer for each lettered part.

2. If the data shown is displayed using a dot plot, how many dots will go over each value?

   2, 3, 7, 4, 10, 1, 3, 7, 12, 1, 10, 2, 1, 1, 3, 6, 6, 8, 9, 11, 2

   a. 2 ○ 1 dot ○ 3 dots
   b. 5 ○ 0 dots ○ 1 dot
   c. 6 ○ 2 dots ○ 3 dots
   d. 9 ○ 1 dot ○ 4 dots

Select the correct answer.

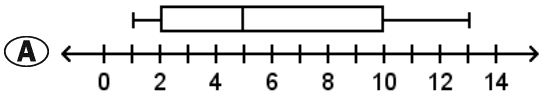
3. The amount of rainfall, in inches, for one town is shown. If this data is displayed using a histogram and equally sized intervals, which intervals can be used?

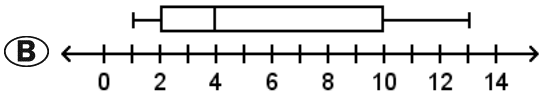
   1.3, 2.5, 0.6, 1.2, 1, 1.3, 0.1, 0.5, 1, 2.6, 1.8, 1.4, 2

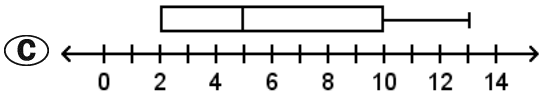
   Ⓐ 0 to 0.9 inches and 1 to 1.9 inches
   Ⓑ 0 to 0.5 inches, 0.6 to 1.5 inches, and 1.6 to 3 inches
   Ⓒ 0 to 1 inches, 0.5 to 2 inches, and 1.5 to 3 inches
   Ⓓ 0 to 0.9 inches, 1 to 1.9 inches, and 2 to 2.9 inches

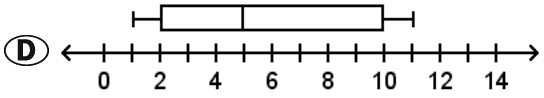
4. Which box plot correctly displays the data set shown?

   2, 5, 7, 2, 11, 13, 5, 7, 1, 10, 10, 2, 3, 5, 1, 11

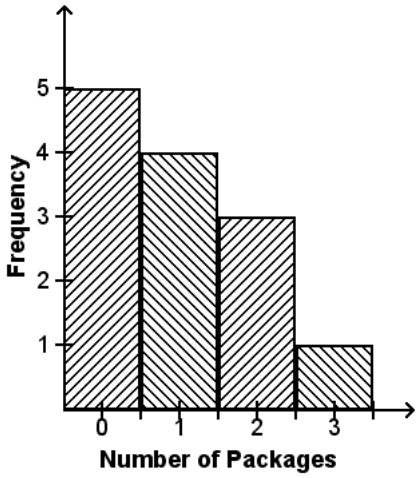
   Ⓐ 

   Ⓑ 

   Ⓒ 

   Ⓓ 

5. What is the median of the data shown in the histogram?



   Ⓐ 0 Ⓒ 1.5
   Ⓑ 1 Ⓓ 2

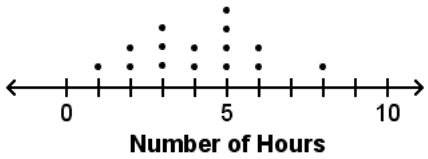
Name _____ Date _____ Class_____

6.SP.5a, 6.SP.5b

SELECTED RESPONSE

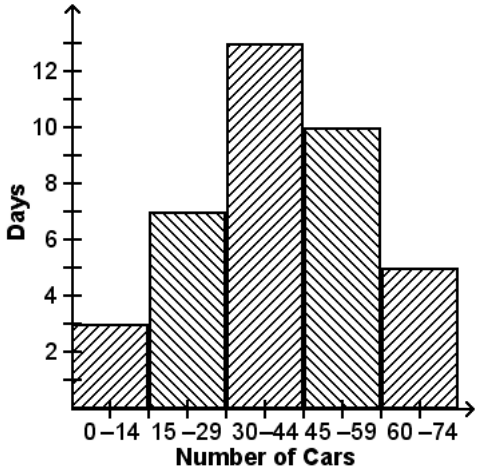
Select the correct answer.

1. Colleen is training over the summer for a triathlon. The amount of time that she spends training daily is displayed on the dot plot shown. How many days did Colleen spend training?



   (A) 7
   (B) 8
   (C) 15
   (D) The number of days cannot be determined.

2. A traffic engineer is collecting counts of how many cars are on one street during a specific time each day. The results are shown in the histogram. How many days did the traffic engineer collect data?



   (A) 13
   (B) 38
   (C) 74
   (D) The number of days cannot be determined.

3. The dean of a university is looking at the number of students who were enrolled in school during previous years. This data is shown in the table. What do the data values represent?

Year	Students Enrolled
2000	700
2001	841
2002	978
2003	1,200
2004	1,345
2005	1,498
2006	1,612
2007	1,766
2008	2,000

   (A) The average number of students enrolled in school each year
   (B) The most number of students enrolled in school between the years 2000 and 2008
   (C) The number of students enrolled in school each month
   (D) The number of students enrolled in school each year

Select all correct answers.

4. Roberto asks “How old are you?” to each of his classmates, and then records the data he receives. Which units can Roberto use to record his data?
   (A) Days
   (B) Inches
   (C) Grams
   (D) Months
   (E) Years