

7th Grade Math
Continuous Improvement
Quiz 1

DO NOT WRITE ON THIS QUIZ!!!

1. Which equation demonstrates the commutative property of multiplication?

- A $x \cdot \frac{1}{x} = 1$
- B $6x \cdot 3 = 3 \cdot 6x$
- C $3(4m \cdot 5) = 12m \cdot 15$
- D $12 \cdot (n \cdot 2) = (12 \cdot n) \cdot 2$

2. Michelle donates money to a charity by dropping it into a canister at her school. For how many days, x , can she make a \$2 donation if she wants to make a donation of \$12 total?

3. Mario has \$142 in his savings account. He withdraws \$29, deposits \$52, then withdraws \$90. What is the balance on his account?

- A \$313
- B -\$29
- C \$209
- D \$75

4. Taylor wants to buy 8 cans of soup that are marked 3 cans for \$3.57. What will Robert pay for 8 cans bought at this same rate?

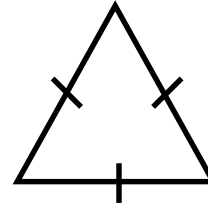
5. Jeff is studying exponents. He made this table:

5^3	125
5^2	25
5^1	5
5^0	?

Which number completes his table?

- A -5
- B 0
- C $\frac{1}{5}$
- D 1

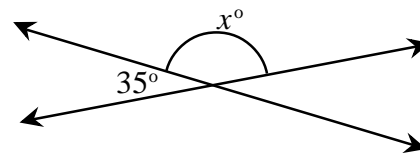
6. Kate wants to classify this triangle.



Which term should she use?

- A obtuse
- B scalene
- C isosceles
- D equilateral

7. Two lines intersect at a 35° angle as shown.



What is the value of x ?

8. Neera covers 700 square feet of space with 2 gallons of paint. Which of these units BEST describes the amount of wall space covered by 1 gallon of paint?

- A feet per gallon
- B gallon per feet
- C gallon per square feet
- D square feet per gallon

9. Mandi draws a card from a standard 52-card deck and flips a coin. What is the probability of her drawing a spade and tossing a head?

10. How many different arrangements can be made with the letters from the word MOVE?

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Quiz 2

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1. Luis showed the following steps when he simplified the expression $-5a + (6a + 4)$.

Step 1: $(-5a + 6a) + 4$

Step 2: $a + 4$

Which property did Luis apply in step 1?

- A additive inverse property
- B identity property of addition
- C associative property of addition
- D commutative property of addition

2. If a porpoise was clocked to swim 50 kilometers per hour. At this speed, how far could it travel in $1\frac{1}{4}$ hours?

3. Which function table represents a linear relationship between x and y ?

A

x	y
0	2
1	4
2	6
3	8

B

x	y
0	0
1	1
2	4
3	9

C

x	y
0	0
1	1
2	0
3	1

D

x	y
0	0
1	1
2	22
3	333

4. The Earth Club hopes to raise \$350 to pay for the planting of trees in a park. Club members have raised \$195 so far. Solve the equation $\$195 + m = \350 to find m , the amount of money they still need to raise.

5. Which point is found on the line represented by the equation $y + 6 = x$?

- A (-5, 1)
- B (2, -4)
- C (3, 9)
- D (6, 6)

6. A shoe store purchases a pair of Nikes for \$65. To sell the shoes to its customers, the price is marked up by 15%. If a customer hands the clerk \$80, how much change would he get back?

7. During the day the temperature was 11°F . At night, the temperature dropped 19°F . What was the temperature at night?

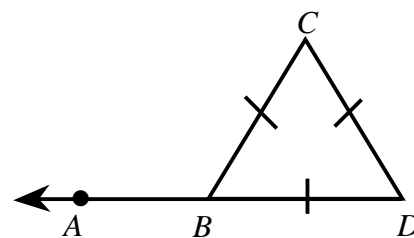
- A -30°F
- B 8°F
- C 30°F
- D -8°F

8. What is the length of the side of a square with an area of 25 square feet?

9. The square root of 154 is between which two integers?

- A 11 and 12
- B 12 and 13
- C 14 and 15
- D 15 and 16

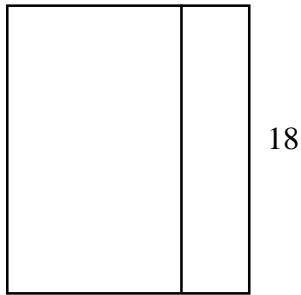
10. What is the measure of $\angle ABC$?



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Quiz 3

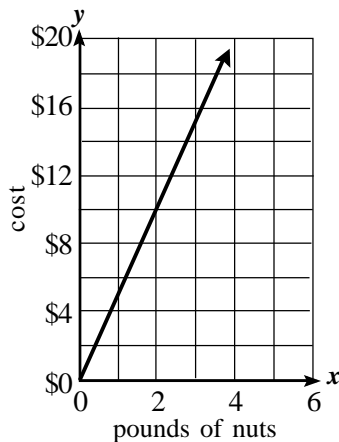
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1. Taft's volleyball court has two sections as shown in the picture. Which expression uses the *distributive property* to find the total area of Taft's volleyball court?



- A $18 + (10 \times 4)$
- B $18 \times (10 + 4)$
- C $18 \times 10 \times 18 \times 4$
- D $18 \times 10 \times 4$

2. Mr. Marcos' store sells nuts in bulk. The graph shows how the price of nuts changes with the number of pounds bought.



How much do the nuts cost per pound?

3. The expression $x < -3$ is NOT a solution of which inequality?

- A $3x < 9$
- B $-3x < -9$
- C $-3x > 9$
- D $\frac{x}{3} < -1$

4. Jared's class measured the daily outside temperature throughout the school year. The lowest temperature that the students recorded was -7°F , and the highest was 95°F . What is the difference between the highest and the lowest temperatures?

5. What kind of triangle has angles with these three measures?

45°, 45°, and 90°

6. When Norma bought lunch at a restaurant, she was given a scratch-off game card with the following statement:

1 out of 8 cards is a winner!

What is the probability that Norma did not receive a winning game card?

- A 8%
- B 12.5%
- C 87.5 %
- D 92 %

7. $3^3 + 4(8-5) \div 6 = \underline{\hspace{2cm}}$

8. A class has 28 students. The ratio of girls to boys is 4:3. How many girls are in the class?

9. If the price of a can of beans is raised from 60 cents to 75 cents, what is the percent increase of the price?

- A 15%
- B 20%
- C 25%
- D 30%

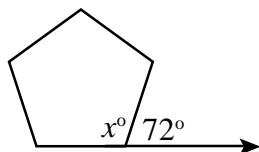
10. A millimeter is what fraction of a centimeter?

- A $\frac{1}{2}$
- B $\frac{1}{10}$
- C $\frac{1}{12}$
- D $\frac{1}{100}$

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Quiz 4

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1. Use supplementary angles to find the value of x .



2. Which properties are demonstrated below?

$$4x + (5 + 0) = 4x + 5 \quad \text{Step 1}$$

$$= 5 + 4x \quad \text{Step 2}$$

- A Step 1: Inverse
Step 2: Commutative
- B Step 1: Identity
Step 2: Associative
- C Step 1: Identity
Step 2: Commutative
- D Step 1: Inverse
Step 2: Associative

3. Mr. Gordon has $35\frac{2}{3}$ pounds of ground beef to make hamburger patties during the lunch shift at his restaurant. How many patties can Mr. Gordon make if each patty is $\frac{1}{3}$ pound?

4. Which equation is consistent with the data in the table?

x	y
2	9
4	5
6	1
8	-3

- A $y = x + 7$
- B $x + y = 11$
- C $2x + y = 13$
- D $3x + y = 15$

5. Which type of triangle is always similar to all other triangles of the same type?

- A acute
- B right
- C scalene
- D equilateral

6. John averaged 60 mph driving 180 miles from Bartlesville to Norman. On the return trip, he drove through a storm and averaged 40 mph. What was his average speed for the round-trip? (Remember, $d = r \times t$)

- A 55 mph
- B 50 mph
- C 48 mph
- D 45 mph

7. Sarah works at a flower shop located on the 80th floor of a building. She went down 60 floors to deliver flowers, back up 15 floors, and finally down 2 floors to make a third delivery. On which floor was Sarah when she made her third delivery?

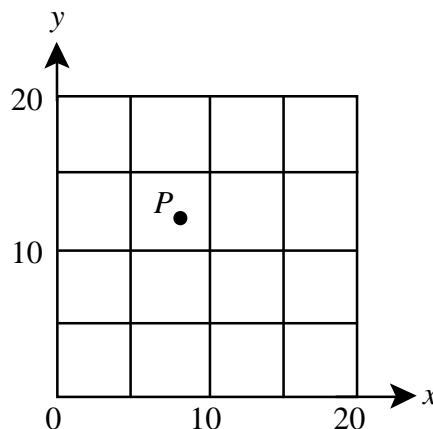
8. Order these integers from least to greatest:

8, -2, 1, -7, 5, 12, -14

9. Katie's bedroom measures 12 feet by 15 feet. The carpet with padding she wants to buy is priced at \$19.99 a square yard plus a \$75 installation fee. How much will Katie pay to carpet her bedroom?

10. Which of the following are most likely to be the coordinates of point P ?

- A (8, 12)
- B (8, 8)
- C (12, 8)
- D (12, 12)



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Quiz 5

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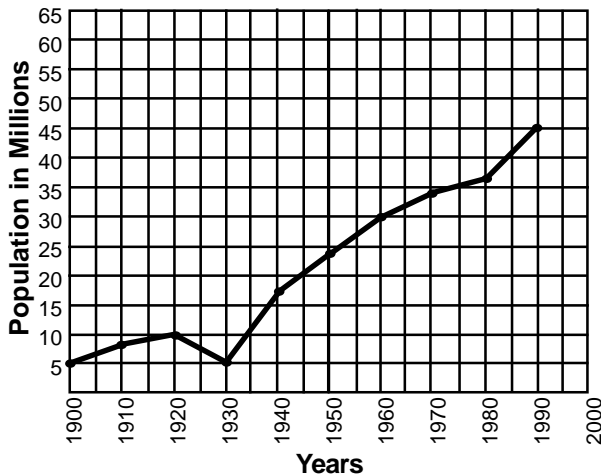
1. A runner ran 3000 m in exactly 8 minutes. What was his average speed in meters per second?

- A 3.75
- B 6.25
- C 37.5
- D 62.5



2. A calculator sells for \$9.99. The purchase price including tax is \$10.69. To the nearest whole number percent, what is the sales tax?

3. **Population of Cameo
1900-1990**



If the population in Cameo increases by the same amount from 1990 to 2000 as from 1980 to 1990, approximately what is the expected population by the year 2000?

- A 47 million
- B 50 million
- C 53 million
- D 57 million

4. In January, the temperature was -12°F . By noon the temperature had risen 12 degrees. What was the temperature at noon?

5. A 1-pound package of meat is priced at \$2.56. A 24-ounce package is priced at \$3.84. Which statement is TRUE?

- A The 1-pound package is the better buy.
- B The 24-ounce package is the better buy.
- C Neither package is the better buy.
- D There is not enough information.

6. Miguel wants to put a fence around his square garden. If the garden covers 81 ft^2 , how many feet of fencing does he need?

7. Read the statements to find the one that is NOT true.

- A All squares are rectangles.
- B All rectangles are quadrilaterals.
- C All rectangles are squares.
- D All squares are quadrilaterals.

8. The diameter of a cylindrical garbage can is 24 inches. What is its approximate circumference? Use 3.14 for π .

$$Cir = \pi d$$

9. Mandy draws a card from a standard 52-card deck and flips a coin. What is the probability of her drawing a spade and tossing a head?

- A $\frac{1}{4}$
- B $\frac{1}{8}$
- C $\frac{1}{13}$
- D $\frac{1}{26}$

10. Jen rents 5 movies. She will watch each movie once. In how many different ways can she choose the first and second movie to watch?

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Quiz 6

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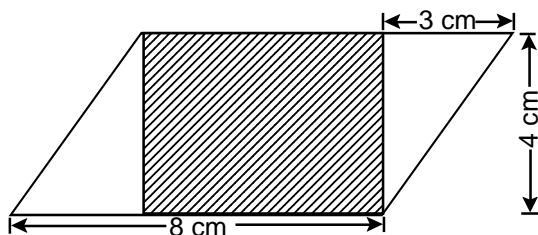
1. Which equation demonstrates the distributive property?

- A $x \bullet 3 = 3 \bullet x$
- B $4(n \bullet 6) = 4n \bullet 6$
- C $3(x + 4) = 3x + 12$
- D $n \bullet \frac{1}{n} = 1$

2. Place the following numbers in order from least to greatest:

-6, 0, 2, -4, 3

3. The figure shows a shaded rectangle inside a parallelogram.

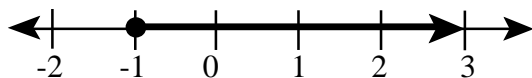


What is the area of the shaded rectangle?

4. John had a jar that contained x dimes. He removed 58 dimes and now has 84 dimes left. Which equation could be used to find x , the number of dimes John had in the jar originally?

- A $x + 58 = 84$
- B $x - 58 = 84$
- C $84 - x = 58$
- D $84 + x = 58$

5. Write the inequality that is represented by the number line below:



6. Sydney cashed a check. She put $\frac{1}{3}$ of the money into her bank account. Then, she spent 50% of the remaining money on video games. After she paid \$7.50 to go to a movie, she had \$20.50 left. What was the value of the check?

- A \$172.00
- B \$168.00
- C \$112.00
- D \$84.00

7. Danny's football team started on their own 25-yard line. The next four plays resulted in the following yardage: -7, +16, -3, and +6. Where on the field did the team end up?

8. Mr. Tan used 5 gallons of gas to travel 140 miles. At this rate, how far can he expect to drive with 8 gallons of gas?

- A 280 miles
- B 1,120 miles
- C 224 miles
- D 90 miles

9. Penny drew a quadrilateral with the following characteristics:

- ✓ all sides equal length
- ✓ opposite sides are parallel
- ✓ two angles are acute

What type of quadrilateral did Penny draw?

10. Jen rents 5 movies. She will watch each movie once. In how many different ways can she choose the first and second movie to watch?

- A 5
- B 10
- C 20
- D 60

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Quiz 7

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1. Which property identifies the equation below?

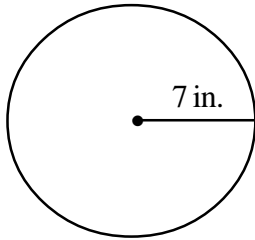
$$0 + f = f$$

- A Identity Property of Addition
- B Commutative Property of Addition
- C Commutative Property of Multiplication
- D Identity Property of Multiplication

2. How many different ways could you and three friends sit in assigned seats at a basketball game?

3. What is the circumference of the circle below to the nearest hundredth?

$$Cir = \pi d \quad \text{use } \pi = 3.14$$



- A 21.98 in.
- B 153.86 in²
- C 43.96 in.
- D 21 in.

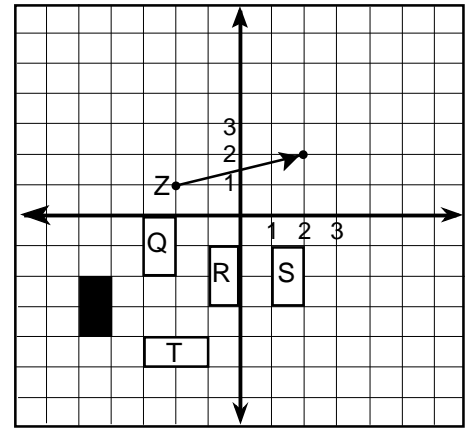
4. Bryan was scuba diving at 10 meters below the water's surface. He rose 4 meters before descending 12 meters to view a coral reef. At what depth did Bryan view the coral reef?

5. Robert want to buy 8 cans of vegetables that are on sale for \$2.49 for 6 cans. What will Taylor pay for 8 cans bought at the same unit price?

- A \$4.98
- B \$3.32
- C \$1.87
- D \$3.74

6. Point Z is moved to a new location at (2,2). Which white shape shows where the dark shape would be if moved in the same way?

- A Q
- B R
- C S
- D T

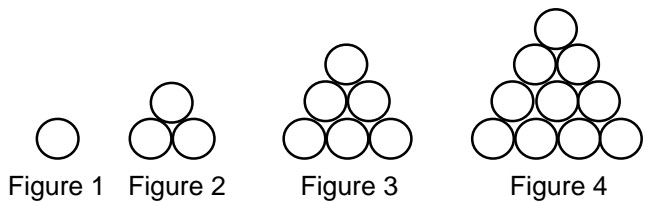


7. Draw an isosceles triangle.

8. Which of the following is not a parallelogram?

- A square
- B rectangle
- C trapezoid
- D rhombus

9. The figures show four sets consisting of circles.



If the sequence continues, how many circles would be needed for Figure 7?

10. Which equation below is equivalent to

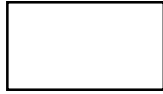
$$5 + 3(c - 8) - 9 = 6c - 4(c+1) + 7c ?$$

- A $8c - 17 = 9c - 4$
- B $3c - 12 = 9c + 1$
- C $3c - 28 = 9c - 4$
- D $3c - 28 = 9c + 1$

7th Grade Math
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Quiz 8

DO NOT WRITE ON THIS QUIZ!!!

1. Which term best describes the quadrilateral shown below?



- A trapezoid
- B rectangle
- C rhombus
- D square

2. Record low temperatures from the following areas are shown below.

District of Columbia: -15°F

Florida: -2°F

Hawaii: 12°F

Maryland: -40°F

Order these temperatures from greatest to least.

3. Jamie bought a shirt priced at \$8.95. He paid 4.5% sales tax. Which expression could Jamie use to determine the total cost of the shirt?

- A $8.95 + (8.95 + 0.045)$
- B $8.95 + (8.95 \times 0.045)$
- C $8.95 + (8.95 + 4.5)$
- D $8.95 + (8.95 \times 4.5)$

4. A pizza shop offers 7 toppings. How many different 3-topping pizzas can be ordered?

5. Which of the following illustrates the commutative property of addition?

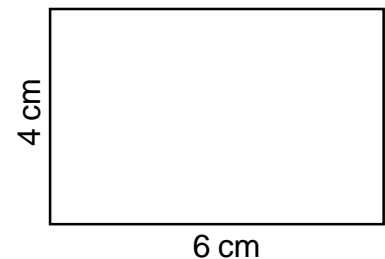
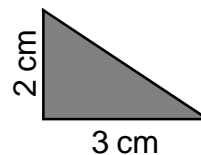
- A $5 + (6 + 1) = (5 + 6) + 1$
- B $5 + 6 = 6 + 5$
- C $-5 + 5 = 0$
- D $5 + 0 = 5$

6. The lowest point of the St. Lawrence River is 294 feet below sea level. The top of Mt. Jacques Cartier is 1,277 feet above sea level. How many feet higher is the top of Mt. Jacques Cartier than the lowest point of the St. Lawrence River?

7. If the price of a can of beans is raised from 60 cents to 75 cents, what is the percent increase in the price?

- A 15%
- B 20%
- C 25%
- D 30%

8.



How many of the shaded right triangles show above are needed to exactly cover the surface of the rectangle?

- A 4
- B 6
- C 8
- D 10

9. Write an expression that represents the phrase "twice a number decreased by four".

10. A tree was 10 feet tall. One year later, the tree was 18 feet tall. Write the equation to find how many feet, f , the tree grew?

- A $f + 18 = 10$
- B $10 + f = 18$
- C $f - 10 = 18$
- D $10 - f = 18$

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Quiz 9

DO NOT WRITE ON THIS QUIZ!!!

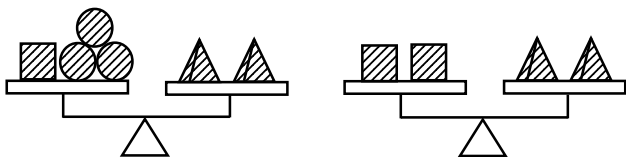
1. The table shows some values of x and y , where x is proportional to y .

x	4	8	Q
y	9	P	45

What are the values of P and Q ?

- A $P= 40$ and $Q= 13$
- B $P= 18$ and $Q= 17$
- C $P= 40$ and $Q= 18$
- D $P= 18$ and $Q= 20$

2. How many circles weigh the same as one pyramid?



3. Which equation illustrates the associative property of multiplication?

- A $(xy)z = x(yz)$
- B $xyz = zyx$
- C $x \cdot 1 = x$
- D $x \cdot 0 = 0$

4. Instead of subtracting a check for \$12.25, Amy added the \$12.25 to her balance. Her checkbook now shows a total of \$220.40. What should the checkbook balance be?

5. n is a number. When n is multiplied by 7, and 6 is then added to it, the result is 41. Which of these equations represents this relation?

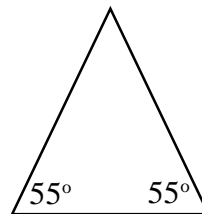
- A $7n + 6 = 41$
- B $7n - 6 = 41$
- C $7n \cdot 6 = 41$
- D $7(n+6) = 41$

6. Which relationship is linear?

- A The cost of stamps and the number of stamps bought.
- B The length of the side of a square and the area of the square.
- C The speed of a car and the time it takes to travel 100 miles.
- D The time of day and the temperature.

7. In a golf tournament, players competed in pairs. Joey and Marisa were partners. Joey got a score of +6 and Marisa got a score of -4. What was their combined score?

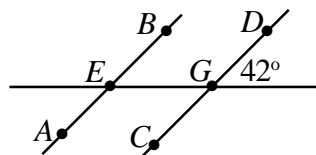
8. How would you best classify the triangle below?



- A obtuse triangle
- B right triangle
- C equilateral triangle
- D isosceles triangle

9. Danny threw a fair die and drew a card from a standard deck of cards. What is the probability that Danny threw a 4 on the die and picked a 4 from the deck?

10. In the figure, $\overline{AB} \parallel \overline{CD}$. What is the measure of $\angle EGD$?



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Quiz 10

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1. Which answer choice is equivalent to the expression?

$$9 + 7(m - 1) + 8 - 3(m + 5)$$

- A $4m - 5$
- B $13m - 23$
- C $4m + 21$
- D $13m - 2$

2. The following temperatures were recorded in January 1998. Order the temperatures from lowest to highest.

-3°F , -5°F , -11°F , 0°F , 2°F , -6°F , 3°F

3. Lee graphed the equation $y = -3x + 2$. Which statement is NOT true?

- A The x-intercept is 1.
- B The slope is negative
- C The point $(-1, 3)$ is a solution.
- D The y-intercept is 2.

4. Shawn and his family had driven 85 miles from home toward Enid Lake. They passed a sign that read "Enid Lake 42 miles ahead". Solve the equation $d - 42 = 85$ to find d , the total distance from their home to Enid Lake.

5. A gram (g) of fat has 9 calories. A gram of protein has 4 calories as does a gram of carbohydrate. How many calories are in a hot dog bun with 2 g of fat, 24.25 g of carbohydrate, and 3.5 g protein?

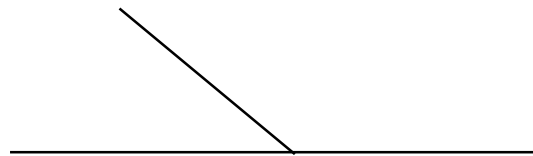
- A 119 calories
- B 129 calories
- C 198 calories
- D 267.75 calories

6. Write the inequality for the number line below?

7. Mr. Woodside want to buy 8 cans of soup that are on sale for \$4 for 6 cans. What will Mr. Woodside pay for 8 cans bought at the same unit price?

- A \$3.45
- B \$5.36
- C \$8.27
- D \$12.00

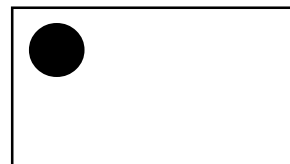
8. Find the measure of the missing angle.



9. Leticia drew a triangle with all sides of equal length. What type of triangle did Leticia draw?

- A right
- B scalene
- C obtuse
- D equilateral

10. Rotate the following figure 90° and draw the resulting picture.



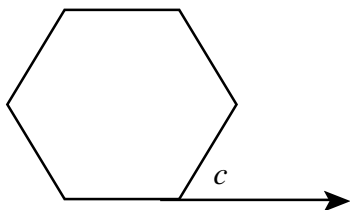
7th Grade Math
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Quiz 11

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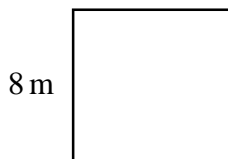
1. Monday, Shelby borrowed six dollars from her mom. Tuesday, she borrowed eight more dollars from her. On Wednesday, Shelby paid her mom back five dollars. How much does she still owe her mom?

2. Below is a regular hexagon with the sum of interior angles totaling 720° . What is the measure of angle c ?

- A 25°
- B 40°
- C 60°
- D 75°



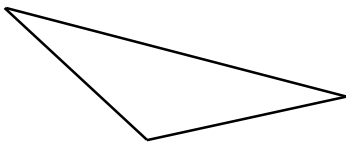
3. Find the area of the square below.



4. Which equation demonstrates the commutative property of addition?

- A $x + 0 = x$
- B $6x + 3 = 3 + 6x$
- C $3(4m + 5) = 12m + 15$
- D $12 + (n + 2) = (12 + n) + 2$

5. Classify the following triangle.



6. Which point is found on the line represented by the equation $y = 2x + 1$?

- A (4, 9)
- B (5, 10)
- C (10, 5)
- D (9, 4)

7. A millimeter is what fraction of a centimeter?

8. What is the ratio of the length of a side of an equilateral triangle to its perimeter?

- A 1:1
- B 1:2
- C 1:3
- D 3:1

9. A cube has sides numbered from 1 to 6. Jason rolled the cube once. What is the probability that the number he rolled was a factor of 6?

10. Mark wants to enlarge a picture that measures 6 inches by 8 inches. If both dimensions are doubled, what happens to the area of the picture?

- A It is doubled.
- B It remains the same.
- C It is multiplied by 4.
- D It is multiplied by 8.

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Continuous Improvement
Quiz 12

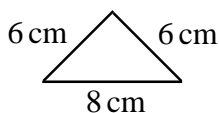
DO NOT WRITE ON THIS QUIZ!!!

1. Sherry's mother will give her 2 quarters for the first chore she finishes, 4 more quarters for the second chore she finishes, 8 more quarters for the third chore, and 16 more quarters for the fourth chore she finishes. If her mother continues this pattern, how many quarters will Sherry get for completing her sixth chore?

- A 18
- B 32
- C 64
- D 128

2. Between what two whole numbers does the value of $\sqrt{78}$ fall?

3. How would you classify the triangle below?



- A isosceles
- B equilateral
- C scalene
- D right

4. Taft Middle School has 4 students who are finalists in the Spelling Bee. In how many different orders could the 4 students finish in 1st, 2nd, 3rd, and 4th place?

5. Which of the following is FALSE when a , b , and c are different real numbers?

- A $(a + b) + c = a + (b + c)$
- B $(ab) = (ba)$
- C $a + b = b + a$
- D $a - b = b - a$

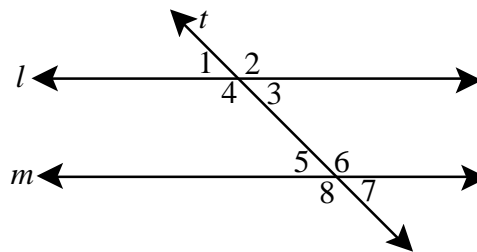
6. Colin printed a picture of a square from his computer. The picture had an area of 64 square centimeters. What was the length of each side of the square?

7. Which point is found on the line represented by the equation $y + 6 = x$?

- A (-5, 1)
- B (2, -4)
- C (3, 9)
- D (6, 6)

8. Point K is located at $(-4, -2)$ on a coordinate plane. In which quadrant is point K located?

9. The drawing below shows parallel lines l and m intersected by transversal t .



Which statement best describes $\angle 1$ and $\angle 5$?

- A They are interior angles.
- B They are vertical angles.
- C They are complementary angles.
- D They are corresponding angles.

10. What is the mode for the following set of data?

2.4, 1.3, 3.9, 3.1, 4.2, 6.4, 1.4,
4.6, 2.9, 1.5, 3.6, 6.3, 1.3, 5.1