# 6th Grade Math Continuous Improvement Quiz 1

- 1. Which expression shows 48 as a product of prime factors?
  - A. 2 x 2 x 2 x 2 x 3
    B. 3 x 4 x 4
    C. 4 x 12
  - D. 8 x 6
- 2. Five stores in the Okie Mall had an increase in sales for the month of November.

# **November Sales Growth**

Store #	% Increase
1	2.7%
2	2.75%
3	3.3%
4	.72%
5	1.02%

List the percentage increases from least to greatest for all five stores.

3. John bought 5 packs of basketball cards for\$1.49 each. The store charged \$0.10 sales tax oneach pack. Estimate John's total cost.

A less than \$2 B between \$2 and \$5 C between \$6 and \$8

D more than \$8

4. On Monday,  $\frac{3}{10}$  inch of rain fell, on Tuesday  $\frac{1}{2}$  inch fell, and on Wednesday,  $\frac{9}{10}$  inch fell. How many inches of rain fell on these three days?

5. Draw a right angle.

6. Mr. Brown has 20 students in his art class. Using 5 inches of yarn for each student to display their art project, what is the least amount of yarn (in feet) Mr. Brown will need to purchase?

- A. 5 feet
- B. 9 feet
- C. 26 feet
- D. 120 feet

7. A recipe book says to bake ham 15 minutes per pound. The ham weighs 12 lbs. If you start cooking at 1 PM, when will the ham be done?

8. Jose is 1.5 m tall. About how tall is the tree?



9. Laura had \$240. She spent  $\frac{5}{8}$  of it. How much money did she have left?

10. Mark's parents told him he could buy \$300 worth of school clothes from a certain store. He bought 3 pairs of slacks at \$24.99 each and a coat for \$149.99. What is the greatest number of shirts he can buy if they cost \$19.99 each?

- A. 2
- B. 3
- C. 4
- D. 5

### 6th Grade Math Continuous Improvement Quiz 2

1. Maria cut a long ribbon into 16 pieces, each  $1\frac{1}{4}$  inches long. What was the length of the ribbon before she cut it?

2. What is the value of the following expression when c = 3?



3.  $A \longrightarrow B$  $C \longrightarrow D$ 

In the figure above, what fraction of rectangle *ABCD* is shaded?

4. The chart below shows the number of people who can be seated in a given row at the Lazy S Arena.

Number of Seats per Row

Row 3	265
Row 6	310
Row 9	355
Row 12	400
Row 15	

If the pattern continues, what would be the number of people who can be seated in Row 15?

- A. 415
- B. 445
- C. 465
- D. 500

5. A recipe book says to bake ham 15 minutes per pound. The ham weighs 12 lbs. If you start cooking at 1 PM, when will the ham be done?

6. Jose had lunch with his parents at his favorite restaurant. The total bill was \$24.00 and they wanted to leave a 15% tip. Which amount of money is closest to the 15% tip?

- A \$3.00
- B \$3.50
- C \$4.00
- D \$4.50

7. Which of these angles has a measure closest to 30°?



8. Julie likes to in-line skate at River Park, which has a sidewalk that is 6.2 kilometers in length. How many <u>meters</u> (m) long is the sidewalk?

9. Todd's dog eats 15 ounces of dry dog food every day. Which is a reasonable number of days it will take Todd's dog to eat 40 pounds of dog food?

- A 25 days
- B 40 days
- C 50 days
- D 65 days

10. What must the temperature be on Saturday to have a five-day average of  $64^{\circ}$ ?



# 6th Grade Math Continuous Improvement Quiz 3

- 1. What is the sum of  $5^3 + 7^2$ ?
- A 29
- B 174
- C 125
- D 74

2. What is the difference of 13.26–3.63 rounded to the nearest whole number?

3. Mrs. Duty bought 21 candy bars for her math class. If each bar cost \$0.49, about how much did the candy cost?

A \$15 B \$10 C \$100 D \$110

4. Juliette wants to buy a shirt for \$14.22 and a pair of sunglasses for \$15.65. By rounding the cost of each time to the nearest dollar, estimate how much money Juliette will need.

5. In the school orchestra, 68% of the students are sixth graders. What fraction of the students are sixth graders?

- A  $\frac{12}{25}$ B  $\frac{17}{25}$ C  $\frac{3}{4}$ D  $\frac{43}{50}$
- 6. Complete the statement. 5 ft 7 in. = \_\_\_\_ in.
- 7. Evaluate  $2^4$ .

8. If the measure of angle *A* is 180°, what type of angle is angle *A*?

- A straight B acute C obtuse D right
- 9. Find the area of the circle. Use  $3.14 = \pi$



10. Erik made a triangle-shaped sail for his model sailboat, as shown below.



Erik made a second sail that was geometrically similar, but not congruent, to the first sail. Which of the following could be Erik's second sail?



# 6th Grade Math Continuous Improvement Quiz 4

1. Dana attends a 90-minute dance class one day each week. Last week, she practiced the following dances during class.



Which display of data is most appropriate to show how Dana spent her practice time in dance class?

A line plot

- B circle graph
- C line graph D tally chart

2. Below are the prices of different kinds of in-line

skates at Skate City:

\$70, \$80, \$50, \$65, \$40, \$40, \$45

What is the median price?

3. Dan bought a melon that weighed  $10\frac{1}{2}$  pounds (lb). What was the weight of the melon in pounds and ounces (oz)?

A 10 lb 2 oz B 10 lb 5 oz C 10 lb 8 oz D 10 lb 12 oz

4. The radius of a circular hot tub is 4.75 feet. Find its circumference. Use  $\pi = 3.14$ .

$$Cir_{circle} = \pi d$$

5. Estimate the quotient  $35 \div 6$ .

A 9

**B** 4

C 2

D 6

6. Which picture shows that  $\frac{2}{5}$  is equivalent to  $\frac{4}{10}$ ?



7. Laura had \$240. She spent  $\frac{5}{8}$  of it. How much money does she have left?

8. Rotate the figure 90° and draw the resulting figure.



9. What is the missing term?



A	36
В	60
С	24
D	48

10. What is the value of the following expression when b = 3?

$$b + (b^2 \bullet 3) - 4$$

# 6th Grade Math Continuous Improvement Quiz 5

1. The table below shows the total cost per month to use the local gym based on the number of visits.

Number of Visits in a Month	Total Cost
0	\$18
1	\$21
2	\$24

If Kim spent \$42 last month, how many times did she visit the gym?

A 4 B 8

C 12

D 20

2. Order these numbers from least to greatest:

4.6, 4.3, 3.8, 4.7

3. This morning, Thuong had \$20. Her lunch cost \$3.98. Her movie ticket cost \$4.50, and her bus fare was \$1.10. If Thuong did not spend any more money, about how much of her \$20 is left?

A between \$9 and \$10 B between \$10 and \$11 C between \$12 and \$14

D under \$9

4. Sherron spends 2 hours on her homework. She spends equal time on all subjects. If Sherron spends  $\frac{1}{3}$  hour on Algebra, for how many subjects does she study?

5. Jasmine bought a 2-liter bottle of soda. How many milliliters of soda were in the bottle?

6. Justin prepared 987 ads for mailing. To prepare each ad, it took him 7 seconds to put each ad into an envelope and 8 seconds to seal, label, and stamp each envelope. Which is the <u>closest</u> to the total amount of time it took Justin to prepare the ads?

- A 1,200 seconds
- B 7,000 seconds
- C 8,500 seconds
- D 15,000 seconds

7. The measure of angle B is 75°. Classify angle B.

A acute B right

C obtuse

D straight

8. How many pints are in 15 cups?

9. What is the weight (mass) shown on the scale?



10. 
$$6\frac{2}{3} \cdot 3\frac{3}{5} =$$

# 6th Grade Math Continuous Improvement Quiz 6

1. Which letter best represents a pair of congruent shapes?



2. If 4 times a number is 48, what is  $\frac{1}{3}$  of the number?

3. Cindy was learning how to play darts. Out of 10 shots, she hit the center twice. What percentage of her shots were worth 15 points each?

- A 10%
- B 15%
- C 20%
- D 30%

4. Write an expression that shows 48 as a product of prime factors.

5. Monica is 11 years of age. Which is the closest to her age in days?

- A 120 days
- B 2,000 days
- C 2,400 days
- D 4,000 days

6. Jill needs \$20 to buy a purse. She plans to save money by setting aside \$.50 on the first day, \$1.00 on the second day, \$1.50 on the third day, and \$2.00 on the fourth day. If Jill continues to save in this manner, on which day will Jill have saved enough money to buy the purse?

A day 8 B day 9 C day 10 D day 11

7. What is the measure of the angle that is the supplement of  $\angle PQR$ ?



- Find the sum.
   86.554 + 5.69
- A 871.23 B 92.244 C 87.123 D 93.954

9. The car is 3.5 m long. About how long is the building?



10. Which of the following numbers has the greatest value?

$$\frac{1}{4}, \frac{2}{6}, \frac{1}{2}, \frac{1}{3}$$

6th Grade Math Continuous Improvement Quiz 7

1. Find the value of the power  $2^4$ .

A 6

- B 8
- C 16
- D 18
- 2. Use supplementary angles to find the value of *x*.



3. Mrs. Emmit drew this sketch of two figures she plans to paint on her bedroom wall. Her son told her the two figures are congruent.



Which statement BEST explains why her son is correct?

- A Both figures are the same shape.
- B Both figures are the same size and shape.
- C The angles in both figures are the same size.

D The line segments in both figures are the same length.

4. Draw an obtuse angle.

5. Ted calculated the area of the top surface of his workbench to be 4320 square inches. What is 4320 square inches converted to square feet (sq ft)?

A 30 sq ft B 40 sq ft C 360 sq ft D 432 sq ft 6. What is the value of the following expression when p = 9?

6p + 5

7. This number pattern appeared in a problem Maria was solving.

4, 8, 16, 32, 64

What can Maria do to find the next number in the pattern?

- A square the last number
- B divide the last number by 4
- C multiply the last number by 2
- D find the square root of the last number

8. Chuck cut an entire length of rope into 28 pieces,  $\frac{1}{2}$  ach 1 feet (ft) long. What was the length of the rope before Chuck cut it?

9. Haley earns between \$5 and \$10 for each lawn he mows. She mows between 10 and 12 lawns per week. Which statement is the most reasonable conclusion of how much Haley will earn in 4 weeks of mowing lawns?

- A Haley will earn less than \$100.
- B Haley will earn between \$100 and \$120.
- C Haley will earn between \$120 and \$200.
- D. Haley will earn more than \$200.

10. Kevin's father put 0.8 quarts of oil in his car. Which fraction of a quart did he use? Write the fraction in lowest terms.

# 6th Grade Math Continuous Improvement Quiz 8

1. The table shows the English test scores for 6 students.

English	Test	Scores
---------	------	--------

Student	Grade		
1	78		
2	92		
3	80		
4	95		
5	85		
6	70		

What is the median of the test scores?

- A 82.5
- B 83.3
- C 85.2
- D 87.5

2. Darius conducted a survey of the yards in his neighborhood. He checked to see if each yard grew flowers, fruits, and vegetables. He made this Venn diagram of his results.



How many yards did NOT grow flowers?

3. How long did Sydney sleep if she went to sleep at 7:33 PM and woke up at 6:27 AM?

A 6 h 54 min.

- B 12 h 39 min.
- C 10 h 54 min.
- D 10 h 39 min.
- 4. Complete the following statement: 633 mm = \_\_\_\_\_ cm

5. The radius of a Pringles can is 4 cm. Find the circumference. Use  $\pi = 3.14$ .

 $\operatorname{Cir} = \pi d$ 

6. What is the complement of an angle with a measure of  $34^{\circ}$ ?

A 56°

- B 214°
- C 146°
- D 124°

7. Draw a right angle.

- 8. Write the fraction as a decimal:  $\frac{3}{11}$
- A 0.27
- B 0.27
- C  $0.\overline{27}$ D  $0.\overline{272}$
- 9. Find the sum. 86.554 + 5.69
- 10. What is the value of the expression below?

$$4^2 + (6 - 5)^2 \div (4 + 4) - 7$$

- A  $1\frac{1}{4}$
- B  $9\frac{1}{8}$
- C 17
- D 25

# 6th Grade Math Continuous Improvement Quiz 9



In the figure above, what fraction of rectangle *ABCD* is shaded?

 $A \frac{1}{6}$  $B \frac{2}{5}$  $C \frac{1}{3}$  $D \frac{1}{2}$ 

- 2. Change .35 to a percent.
- 3. Find the mode of the data.

94, 100, 98, 98, 93, 97

A 97

B 98

- C 100, 93
- D no mode

4. The table below shows the amount of water four students drank in a two-day period. Who drank the most water?

Name	Amount of Water Drank				
Daria	13 cups				
Felicia	7 pints				
Gary	5 quarts				
Wilma	1 gallon				

5. Todd's dog eats 15 ounces of dry dog food every day. Which is a reasonable number of days it will take Todd's dog to eat 40 pounds of dog food?

A 25 daysB 40 daysC 50 daysD 65 days

A B C D

6. Julia likes to skate at River Park, which has a path that is 6.2 kilometers in length. How many <u>meters</u> (m) long is the path?

7. If x = 6, what is the value of the expression?

$$\begin{array}{c}
(2+x)^2 \div 8 \\
(2+x)^2 \div 8 \\
8
\end{array}$$

8. The radius of a coffee can is 3 inches. What is the circumference of the can? (Use 3.14 for  $\pi$ .)

9. The measure of  $\angle B$  is 118°, and  $\angle B$  is the supplement of  $\angle C$ . Which statement below is true about  $\angle B$  and  $\angle C$ ?

- A The are both obtuse angles.
- B The sum of their measures is 90°.
- C The sum of their measures is 360°.
- D One angle is acute and one angle is obtuse.

10. How many of these triangles appear to be congruent?



# 6th Grade Math Continuous Improvement Quiz 10

1. What is the value of the following expression when *t*=4?



2. What are the next three numbers in the pattern?

1, 1, 2, 3, 5, 8, ...

- A 10, 15, 20
- B 9, 10, 11
- C 13, 21, 34
- D 10, 12, 14

3. The table shows the number of pies eaten by the top four contestants in a middle school pie-eating contest.

Contestant	Pie eaten
Ali	$5\frac{1}{2}$
Brett	$5\frac{1}{4}$
Luis	$5\frac{2}{3}$
Zek	$5\frac{3}{8}$

List the number of pies eaten in order from least to greatest.

4. Miss Johnson plans to cut a 6 foot (ft) board into pieces that are  $\frac{3}{4}$  ft long, as shown in the diagram below.

$\vdash \frac{3}{4}$ ft –		
	— 6 ft —	

How many pieces can she get from this board?

- A 9 pieces
- B 8 pieces
- C 6 pieces
- D 4 pieces

5. Multiply.

0.03 x 3.4

6. According to the correct order of operations, which of these should be performed first to simplify the following expression?

$$3^2 + 24 \div 6 \ge 2 + (10 + 6^2)$$

A  $3^{2}+24$ B  $6 \times 2$ C  $6^{2}$ D 10+6

7. Write the following decimal as a fraction or mixed numeral in simplest form.



8. Use estimation to match the angle with its measure.





с 145°

D 95°

9. Classify the angle as *acut*e, *right*, *obtuse*, or *straight*. The measure of the angle is 45°.

10. Which shows a pair of shapes that appears to be similar but not congruent?



# 6th Grade Math Continuous Improvement Quiz 11

1. Find the difference:  $8^2 - 5^2$ 

2. The radius of a bicycle tire is 8 inches. What is the circumference?

$$Cir_{circle} = \pi d$$

A 25.12 in B 50.24 in C 11.14 in D 19.14 in

3. How many quarts are in 4.5 gallons?

4. Marcus bought four candy bars at \$.69 each. About how much did Marcus spend on the candy bars?

- A \$1.40
- B \$2.10
- C \$2.80
- D \$3.60

5. Ellen created a number pattern. Study her pattern and then write the next three numbers in her pattern.



6. Jose built a chair with his grandfather. They measured the angle between the leg and the seat to be 90°. What type of angle was this?

A acute

- B obtuse C straight
- D right

7. Hein used a mirror to draw a reflected image of the following figure. Which image shows the figure's reflection?



8. Michelle is making peanut brittle. Each batch takes  $2\frac{1}{4}$  cups of peanuts. If she wants to make 3 batches, how many cups of peanuts will she need?

9. Tiny Town has about 80 houses. Most families living in these houses have 2 to 4 residents. What is a reasonable estimate for the population of Tiny Town?

- A 80
- B 250
- C 490
- D 640

10. The graph shows the time of travel by students from school. How many travel MORE than 10 minutes?



# 6th Grade Math Continuous Improvement Quiz 12

1. Evaluate the expression.

16 - 
$$p$$
 when  $p = 8$ 

2. Riley is solving this math problem, which is part of his homework

$$2-(4+5)^2 \div 3$$

If he uses the correct order of operations, what should Riley do first?

- A add 4 and 5
- B divide 5 by 3
- C subtract 4 from 2
- D raise to the power of 2

3. What are the next two terms in the pattern?

486, 162, 54, 18, ...

4. One winter in Enrique's home state, it snowed 39 inches in  $6\frac{1}{2}$  days. What is the rate in inches of snow per day?

A 4 inches per day

- B 5 inches per day
- C 6 inches per day
- D 7 inches per day

5. A storage shed in the shape of a square measures 15 feet on each side. How many yards (yd) are equivalent to the perimeter of the shed?

A 20 yd

B 40 yd

C 75 yd

D 225 yd

6. The large square below was divided into smaller squares of equal size.

6		7						7	
			4		6				
	6					7			6
		7			6				
				1				7	
	6						4		4
			6		7				
	7							6	
		4		7		6		2	
6			7						

What fractional part of the large square is represented by the number of small squares that contain the number 6?

7. Joe bought four bags of meat for sandwiches. The weight of the bags, in pounds (lb) are shown.

$$2\frac{5}{6}$$
lb,  $1\frac{1}{4}$ lb,  $2\frac{1}{8}$ lb,  $1\frac{3}{4}$ lb

Which is the closest to the total weight of the four bags of meat?

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

8. Draw an obtuse angle.

9. Emily saved \$320. She spent  $\frac{5}{8}$  of it. How much does she have left of her savings?

10. Miguel is a 12-year-old boy. Which is the most reasonable length for his footprint?

A 0.25 meter B 2.5 centimeters

- C 25 decimeters
- D 2,500 millimeters