

## 6<sup>TH</sup> GRADE SUMMER REVIEW

### Simplify.

- 1)  $23.008 - 9.139$
- 2)  $2.73(96)$
- 3)  $89.7 + 1.96$
- 4)  $479.96 \div 52$
- 5) Evaluate  $11 - x$  if  $x = 6.53$ .
- 6) Evaluate  $a + 2.12$  if  $a = 3.542$ .

### Find the greatest common factor of each group of numbers.

7) 40, 60 \_\_\_\_\_

### Find the least common multiple of each group of numbers.

8) 18, 10 \_\_\_\_\_

- 9) Dave is planning a cook-out. If hotdogs come in packages of 6 and buns come in packages of 8, what is the minimum number of hotdogs and buns he could buy and have no leftovers? How many packages of each?

### Find each sum or difference. Write in simplest form.

10)  $4\frac{1}{9} - 2\frac{4}{9}$

11)  $1\frac{7}{10} + 3\frac{3}{4}$

### Find each product or quotient. Write in simplest form.

12)  $1\frac{3}{8} \cdot \frac{6}{11}$

13)  $\frac{7}{8} \div 2$

14) Lauren bought 12 pounds of raisins. She packed them into freezer bags so that each bag weighs  $\frac{3}{4}$  lb. How many freezer bags did she pack?

15) Evaluate 3 cubed.

16)  $12^2 \div (3 \cdot 2^2)$

17)  $60 \div 10 \cdot 9 + 10^2$

**Evaluate each expression if  $a = 2$ ,  $b = 4$ , and  $c = 6$ .**

18)  $3ab$

19)  $\frac{bc}{c-a}$

20) Use the expression  $5w^2 + 12w + 18$  to determine each below.

# of terms \_\_\_\_\_ Coefficients \_\_\_\_\_ Constant \_\_\_\_\_ Variables \_\_\_\_\_

**Simplify.**

21)  $12m + 7m$

22)  $7(m - 6)$

23)  $5n + 4 + n - 2$

24)  $17r - 17r$

25)  $9(y + 2) - 3y - 6$

26)  $24g + 11 - 20g - 4g$

27)  $8(y + 10) + 2(y - 3)$

**Find the percent of each number.**

28) 8% of 200

**Order the rational numbers from least to greatest.**

29)  $\frac{3}{4}$     0.34    65%     $\frac{7}{12}$

- 30) Taylor is buying an i-Pod that is on sale for 10% off the regular price. If the i-Pod is regularly \$150, how much will she pay?
- 31) A sweatshirt costs \$48 at Hollister. The sales tax rate is 7%. How much will it cost to buy the sweatshirt?
- 32) If a 6-foot man casts a 5-foot shadow, how tall is a building next to the man that casts a 45-foot shadow?

**Solve the equation and graph the solution on a number line.**

33)  $3x = 9$

34)  $9 = x - 3$

35)  $x + 12 = 29$

36)  $8 = \frac{x}{4}$

37)  $5 \text{ mi} = \underline{\hspace{2cm}} \text{ ft}$

38)  $0.02 \text{ kL} = \underline{\hspace{2cm}} \text{ L}$

39) Solve for n.  $\frac{n}{6} = \frac{1.5}{4}$

40) On a scale drawing, 2 cm = 15 km. A line segment on a drawing is 3 cm long. What is the actual distance?

41) The actual distance between Albany and Atlanta is 206 miles. If the map scale is 1 inch to 20 miles, what is the distance between Albany and Atlanta on the map?

42) Use the table below to write an equation, and graph the relationship. (Use your own graph paper)

<b>x</b>	3	6	9	12
<b>y</b>	1	2	3	4

43) If  $y = \frac{1}{2}x$ , find y if  $x = 9$ .

44) Emily conducted a survey to determine students' favorite ice cream flavor. Of the students she surveyed, 14 out of 70 preferred cookie dough. If there are 1000 students in her school, predict how many would prefer cookie dough.

45) Compare and contrast the units of measure for surface area and volume?

46) If a gift box has the length of 4.5 m, width of 3 m, and is 2 m tall, how much cardboard is needed to create the box?

47) Create a dot plot for the Number of Pets in each Family:

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

48) Use the following data to create a box & whisker plot:

Low Temperatures for January				
24	22	1	14	9
7	10	9	16	14
6	11	5	8	

**Identify:**

Lower Extreme (Minimum): \_\_\_\_\_

Upper Extreme (Maximum): \_\_\_\_\_

Median: \_\_\_\_\_

Lower Quartile: \_\_\_\_\_

Upper Quartile: \_\_\_\_\_

Interquartile Range: \_\_\_\_\_

49) Find the mean, median and mode for the following roller coaster speeds:

Maximum Speeds of Roller Coasters (mph)			
58	88	40	60
72	66	80	48

**Solve and graph the solution to each inequality.**

50)  $9m > 108$

51)  $x + 10 \leq 23$

52)  $k - 13 < 42$

53)  $\frac{g}{4} \geq 8$

54) Megan bought a scarf for \$16.50. She paid with a \$20 bill. Write an equation to represent amount of change,  $c$ , she would receive.

55) Morgan paid \$180 for  $n$  video games. Each game was the same price. Write an expression that represents the cost of each game.

56) Graph  $(-7, -3)$  and  $(-7, 7)$  on the coordinate plane to the right.

57) Reflect both points across the  $y$ -axis to form the vertices of a rectangle.

58) Write the coordinates for the reflections.

59) What is the perimeter and area of the rectangle?

60) Can a decimal or fraction be an integer?

61) It is  $87^{\circ}$  F in Destin, FL. It is  $10^{\circ}$  F below zero in Saint Paul, MN. How many degrees warmer is it in Destin than in Saint Paul? (Use a number line if needed)

62) Evaluate:  $|50|$

63) Evaluate:  $-|-23|$

64) Order from least to greatest: 12, -4, 0, -6, -20

**Compare using  $<$  or  $>$ .**

65)  $-22$  \_\_\_\_\_  $-32$

