Name _____ Period _____ Date _____

Math 6 Final Study Guide

Which operation would you use to solve problems 1 & 2. DO NOT SOLVE (Lesson 1.1)

1. A runner finishes a race in 67 seconds, an improvement of 5 seconds compared to his last finishing time. What was the runner's last finishing time?
2. A six-story building is 72 feet tall. What is the height of each story?

Evaluate the expression. (Lesson 1.3)

3. $64 \div 16 + 5 \times 3$

Write the prime factorization of the number. (Lesson 1.4)

4. 51

Find the GCF of the numbers. (Lesson 1.5)

5. 18, 78

Find the LCM of the numbers. (Lesson 1.6)

6. 9, 12

Find the value of the power. (Lesson 1.2)

7. 5^3

Solve and simplify. (Lesson 1.6)

8. A store has 15 boxes of apples. Each box contains 98 apples.

   a. How many apples does the store have?

   b. What is the maximum number of bags of apples that can be sold if 8 apples are put in each bag?

9. **You have 64 inches of blue fabric and 96 inches of green fabric. You want to cut the fabric into pieces of equal length with no leftovers. What is the greatest length of the pieces that you can make? (Lesson 1.5)**

Answers

1._____

2._____

3._____

4._____

5._____

6. _____

7. _____

8. a._____

8.b_____

9. _____

10. _____

10. A rectangular pool is 30 ⅓ feet long and 12 ½ feet wide. What is the area of the pool? (Lesson 2.1)

11. _____

12. _____

Evaluate the expressions. Write the answer in simplest form. (Lesson 2.1 - 2.3)

11. $1\frac{3}{4} + \frac{5}{6}$ **12.** $\frac{3}{5} - \frac{4}{7}$

13. _____

13. $\frac{5}{8} \times \frac{4}{9}$ **14.** $3 + 2\frac{4}{5} \div 1\frac{2}{5}$

14. _____

15. _____

Evaluate the expressions. (Lesson 2.4-2.6)

15. 28.1 - 21.97 **16**. 100.6 + 2.314

16. _____

17. _____

17. 0.006×0.32 **18**. $16.56 \times (5.4 \div 9)$

18. _____

For questions 19 through 23, select the choice that best completes the statement or answers the questions. (Lesson 2.2)

19. _____

19. Select the reciprocal of the number: $7\frac{3}{7}$

a. $\frac{7}{10}$ **c.** $\frac{7}{52}$

b. $\frac{1}{7}$ **d.** $\frac{14}{3}$

20. _____

20. Which operation should you perform first when you evaluate the following expression?

$15 - 8 \div (4 - 2) \times 3$

a. subtract 8 from 15 **c.** subtract 2 from 4

b. divide 8 by 4 **d.** multiply 2 by 3

21. Select the correct expression for : 10 fewer than 17

a. 10 - 17 **c.** 17 + 10
b. 17 - 10 **d.** 17 ÷ 10

22. Select the correct expression for : the quotient of 3 and a number y

a. $3 + y$ **c.** $3 \div y$
b. $y \div 3$ **d.** $3 \times y$

23. Select the correct expression for: 9 more than a number m

a. $m \div 9$ **c.** $m + 9$
b. $m \times 9$ **d.** $m - 9$

24. Evaluate the expression (Lesson 3.1) when $a = 8$: $4a + 3.01$

25. Identify the terms, coefficients, and constants of the expression: (Lesson 3.1)

$8x + 7y^2$

Use the LCD to rewrite the fractions with the same denominator:

26. 9/10 , 3/8

a. 9/40 , 3/40 c. 72/80 , 30/80
b. 36/40 , 15/40 d. 36/40 , 3/40

27. Find the LCM of the denominators $\frac{1}{3,}$ **,** $\frac{3}{8}$

a. 1 c. 2
b. 16 d.24

28. What is the formula for Area of a Parallelogram (Lesson 4.1)

29. What is the formula for area of a Triangle (Lesson 4.2)

30. What is the formula for area of a Trapezoid (Lesson 4.3)

21._____

23._____

24._____

25.terms_____
_____

25.Coefficients:_____
_____

25. Constant:_____
_____

26._____

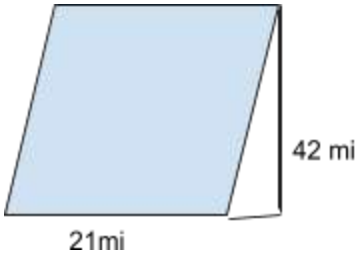
27._____

28._____

29._____

30._____

31. Find the area of the parallelogram (Lesson 4.1)



31._____

32._____

33._____

32. Catherine took a survey of how many people visited the local ice cream shop. She asked them their age. Their ages are shown. Create a Histogram to represent the data. (Lesson 10.2)
Data: 10, 27,24,13,8,16,10,11,7,3,5,23,10,23,25,13

34._____

35._____

33. What is the mean of the ages of the people that visited the ice cream shop? (Lesson 9.2)

36._____

34. Simplify: (Lesson 3.4)

$5(9b + 5)$

35) Write the phrase as an expression: (Lesson 3.2)

Twice a number Z

36) Evaluate the expression: (Lesson 1.3)

$16 + (5^2 - 7) \div 3$

37. Find the missing value(s) in the ratio table.
Then write the equivalent ratios. (Lesson 5.2)

37._____

Forks	**16**	**8**	
Spoons	**10**		**30**

38._____

38. Use the table to write the ratio. Explain what the ratio means. (Lesson 5.1)

10. dramas to movies **11. comedies to movies**

12. movies : action **13. movies : dramas**

39._____

Movie	**Number**
Drama	**3**
Comedy	**8**
Action	**4**

40._____

39. Evaluate: (Lesson 1.2)

$8^2 + 5^3$

41._____

1. $(8 \cdot 2) + (5 \cdot 3)$
2. $(8 + 8) + (5 + 5 + 5)$
3. $(8 \cdot 8) + (5 \cdot 5 \cdot 5)$

40. Divide: (Lesson 2.6)

$43.26 \div 14$

41. Simplify: (Lesson 3.4)

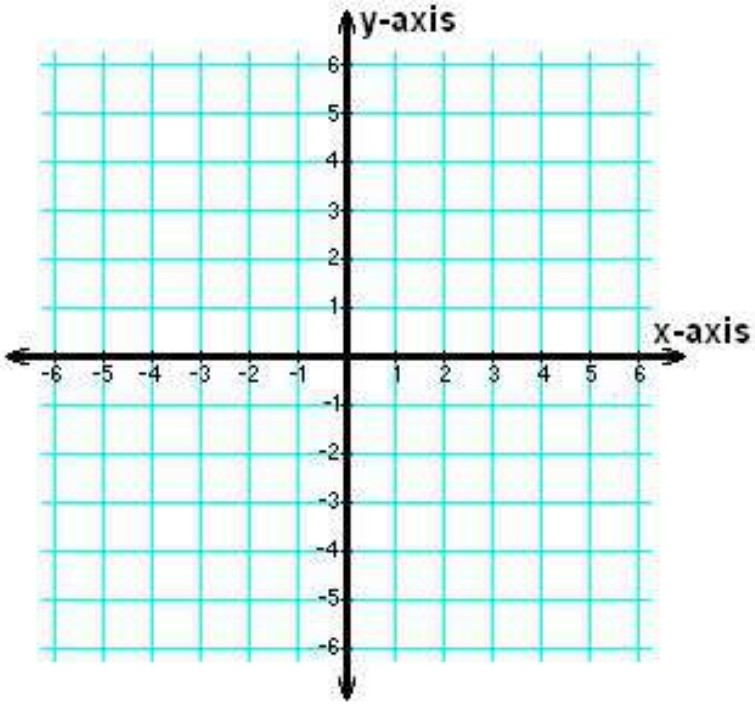
y+ y + y

42) Plot the ordered pair in a coordinate plane. Describe the location of the point. (Lesson 6.5)

42. <u>Plot onto graph</u>.

1. K(4, 3) **2. L(−1, 2)** **3. M(0, −6)** **4. N(3.5, −1.5)**

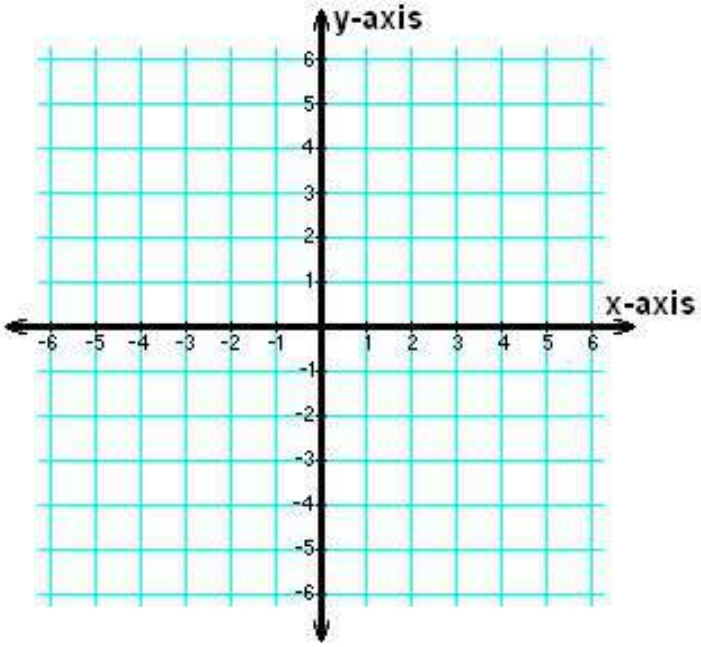
5. P(2, −4) **5. R(−4, 1)** **6. S(2 1 — 2 , 0)** **7.. T(−4, −5)**



43) Draw the figure with the given vertices in a coordinate plane. Find the perimeter and the area of the figure. (Lesson 6.5)

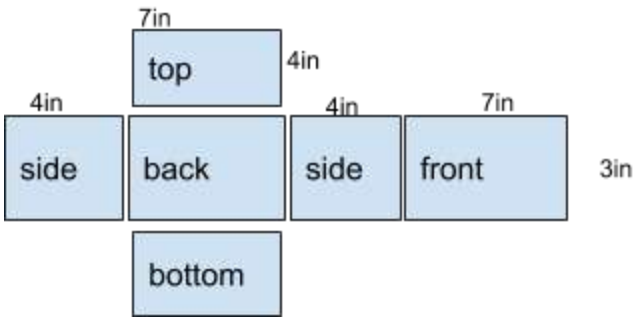
1) **D(1, 1), E(1, −2), F(−2, −2), G(−2, 1)**
2) **P(−2, 3), Q(5, 3), R(5, −1), S(−2, −1)**

43. <u>Plot of graph</u>



44. Find the surface area of the rectangular prism. Use the net to find the area of each face. (Lesson 8.2)

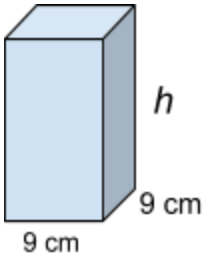
44. _____



45. Write and solve an equation to find the missing dimension of the prism. (Lesson 8.4)

Volume = 1620 cm3

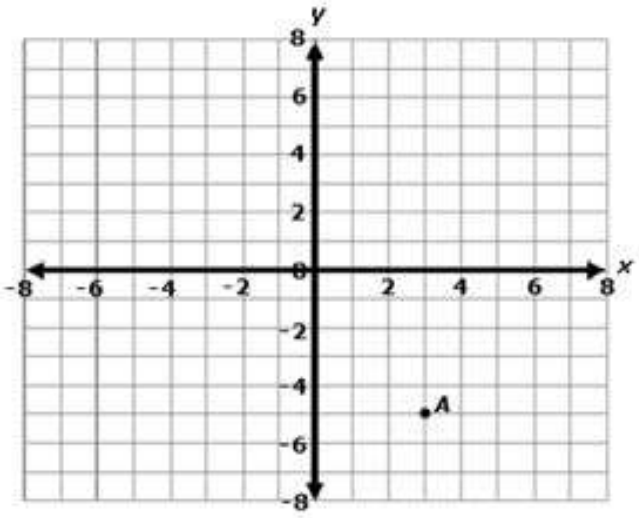
45. _____



46. _____

46. Mary is buying the basketball team snacks after their game. 7 players want *Takis* and 6 players want *Oranges*. If *Takis* cost $1.79 each and *oranges* cost $0.39 each. How much will Mary spend on snacks for the team.

47. What is the ordered pair for point A? (Lesson 6.5) **47. _____**



48. _____

_____

49. _____

_____

48. AREA The area of Jamaica is 6460 square miles less than the area of Haiti. Write and solve an equation to find the area of Haiti. (Lesson 7.2)

50. _____

_____

Area = 4181 m^2

49. Order the values from least to greatest. (Lesson 6.4)

| −3 | , | 5 | , −3, −4, | −4 |

50. Solve the equation. Check your solution (Lesson 7.3)

a) $6 = \frac{t}{5}$ **b) 75= 6 •** w

51. _____

51. Tell whether the ordered pair is a solution of the equation. (Lesson 7.4)

_____

a) $y = 7x + 2$; (2, 0) **b)** $y = 2x - 3$; (4, 5)

52. See Left

53. _____

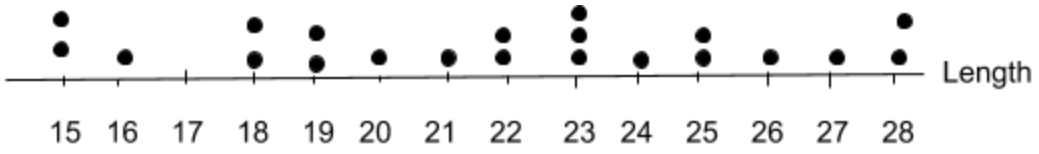
52. Graph the inequality on a number line. (Lesson 7.5)

_____

a) $n \geq 8$ **b)** $y < \frac{1}{2}$ **c)** $-3 \geq c$

_____

53. EARTHWORMS The dot plot shows the lengths of earthworms. (Lesson 9.1)



a. How many earthworms does it represent?
b. How can you collect these data? What are the units?
c. Write a statistical question that you can answer using the dot plot. Then answer the question.

54. Make a stem-and-leaf plot of the data (Lesson 10.1)

Bikes Sold			
78	112	105	99
86	96	115	100
79	81	99	108

55. Display the data in a histogram. (Lesson 10.2)

States Visited	
States	Frequency
1-5	12
6-10	14
11-15	6
16-20	3

56. CAMPING The numbers of days 12 friends went camping during the summer are 6, 2, 0, 10, 3, 6, 6, 4, 12, 0, 6, and 2. Make a box-and-whisker plot for the data. What is the range of the data? (Lesson 10.4)