Name: _____ Entering 7th grade summer review packet

Directions: Answer each question to the best of your ability. Be sure to show your work.

1. 279×36	2. 413×580
3. $45.79 + 0.533$	4. $71.389 + 6$
5. $8.79 - 0.80$	6. $43.001 - 5.9$
7. 67.9×1.3	8. 2.4×3.90
9. Marty bought 1.5 pounds of gummy worms and 2.7 pounds of sour bear. How much candy did Marty buy?	10. Tim is building a dog house. He purchased a piece of wood that measured 9.75 feet long. He sawed off 4 feet for one of the walls of the dog house. How much wood is left unused?

11. Which of the following fractions are equivalent? Choose all that apply.

- ☐ $\frac{1}{2}$
- ☐ $\frac{4}{8}$
- ☐ $\frac{12}{34}$
- ☐ $\frac{3}{4}$
- ☐ $\frac{5}{10}$

12. Write a fraction that is equivalent to $\frac{4}{5}$

13. Find a common denominator for $\frac{2}{3}$ and $\frac{1}{2}$.

14. Circle the larger fraction.

$$\frac{4}{5} \qquad \frac{1}{3}$$

15. Put the fraction in order from least to greatest.

$$\frac{1}{8} \qquad \frac{3}{4} \qquad \frac{1}{2}$$

16. Use an inequality sign to indicate which fraction is smaller.

$$\frac{3}{7} \qquad \frac{2}{3}$$

17. Change the fraction from an improper fraction into a mixed number.

$$\frac{16}{5}$$

18. Change the fraction from a mixed number to an improper fraction.

$$4\frac{2}{7}$$

19. Add the following fractions. Simplify/ reduce if possible. Your answer should be in lowest terms. $\frac{5}{8}+\frac{2}{4}$	20. Subtract the following fractions. Simplify/ reduce if possible. Your answer should be in lowest terms. $\frac{19}{21}-\frac{2}{7}$
21. Add the following fractions. Simplify/ reduce if possible. Your answer should be in lowest terms. $3\frac{1}{3}+1\frac{1}{3}$	22. Multiply the following fractions. Simplify/ reduce if possible. Your answer should be in lowest terms. $\frac{4}{5}\times\frac{6}{7}$
23. Multiply the following fractions. Simplify/ reduce if possible. Your answer should be in lowest terms. $\frac{5}{7}\times\frac{1}{5}$	24. Subtract the following fractions. Simplify/ reduce if possible. Your answer should be in lowest terms. $2\frac{3}{4}-\frac{2}{4}$
25. Identify the base and the exponent in the expression below. 5^3 Base: Exponent:	26. Solve: 2^5
27. Write the following expression in exponential form: $3\times3\times3\times3\times3\times3\times3$	28. Fill in the blank: Any number to the power of zero equals _____.

29. Solve: 1.2^2	30. Solve: $\left(\frac{1}{3}\right)^3$
31. Solve: 25^1	32. Solve: 243^0
33. What does PEMDAS stand for?	34. Use orders of operation. $5 \times 4 + 13 \times 2$
35. Use orders of operation. $6^2 - 4 \div 2$	36. Solve the expression: $20 - 8 \times 4 \div 2 + 6$
37. Which operation should come first in the expression $18 - 2 + 5 \times (12 + 66 \div 2)$ ☐ $2 + 5$ ☐ 5×16 ☐ $12 + 66$ ☐ $66 \div 2$	38. Solve the expression: $6^2 \div [(4.3 \times 3) + 5.1]$
39. What is a variable?	40. Circle the words that mean addition: Sum Together Difference Per Double Total

41. Circle the words that mean subtraction:

Reduce Together Difference

Less than Decreased by Of

42. Circle the words that mean multiplication:

Per Triple Product

Off Double Of

43. Circle the words that mean division:

Take away Quotient Per

Difference Sum Total

44. Translate the following sentence into an algebraic expression.

Five more than the number x

45. Translate the following sentence into an algebraic expression.

13 fewer than the number y

46. Translate the following sentence into an algebraic expression.

2 more than Double the number d

47. Identify Parts of an Expression:

a. How many terms does the expression 12*r* + 0.5 – 19 have? _____

b. What is the coefficient in the expression 75*b* + 14? _____

c. What is the variable term in the expression $12 + 3x - (2 \times 6)$ _____

48. Evaluate the Algebraic Expression for $w = 5,\ x = 3,\ y = 4$ and $z = 8$

a. $9x$

b. $(x + z) \div 11$

c. x^3

d. $\frac{80}{w}$

49. Complete the input/output table

x	1	4	6
$28 - x^2 + 6$			

50. Use the distributive property to simplify: $2(r + 3)$

51. Use the distributive property to simplify: $6(4s - 1)$

52. Use the distributive property to simplify: $4(2.5b + 7)$

53. Combining like terms:

$$4.2n + 5 - 3.2n$$

54. Combining like terms:

$$2y + \frac{1}{2} + \frac{3}{7} + 18y - 3y$$

55. Combining like terms:

$$x + x + x + x + x$$

56. Mr. Parker wants to rent a cargo van for a day. It will cost the daily fee of $50 plus $0.35 per mile driven. Let *m* = the number of miles Mr. Parker drives for the day. Write an expression that shows the amount he will pay for the van.

57. On a trip, Morgan drives at an average speed of 65 miles per hour. The equation $d = 65t$ can be used to find the distance d, she travels, where t is the time in hours. Fill in the table below to find the distances at different times.

Time, *t*	**Distance, *d***
3	195
4	
6	390
7	
10	

58. Find an equivalent fraction:
    a. $\frac{8}{13}$
    b. $\frac{5}{16}$

59. Simplify each fraction:
    a. $\frac{15}{25}$
    b. $\frac{49}{77}$

60. Convert the mixed numbers to improper fractions and the improper fractions to mixed numbers.
    a. $7\frac{3}{5}$
    b. $6\frac{5}{6}$
    c. $\frac{32}{9}$

61. Add and subtract fractions with like and unlike denominators.

$\frac{5}{6}+\frac{1}{4}$	$6+\frac{2}{6}$
$3\frac{4}{7}-\frac{1}{2}$	$\frac{6}{10}+\frac{3}{10}-\frac{2}{5}$

62. Multiply and divide fractions. Simplify your answer when possible.

$\frac{9}{10}\times\frac{1}{4}$	$\frac{12}{17}\div\frac{3}{4}$
$\frac{3}{11}\times\frac{6}{12}$	$5\frac{1}{3}\div\frac{2}{3}$

63. Tell which value of the variable is the solution of the equation.

a. $49 = 7r$ $\quad r = 3, 6, 7, 9$

b. $24 \div h = 6$ $\quad h = 1, 3, 4, 6, 8$

c. $u + \$8.44 = \$12.00$ $u = \$2.56, \$2.66, \$3.46, \$3.56$

d. $\$4.10 = \$16.25 - y$ $y = \$12.15, \$12.95, \$13.05, \$13.15$

64. Solve for the variable. Addition and Subtraction Equations

a. $80 + r = 160$

b. $60 = x - 16$

c. $20 = y + 12$

d. $z - 313 = 176$

65. Solve for the variable. Multiplication and Division equations

a. $t \div 15 = 3$

b. $u \div 8 = 12$

c. $99 = 3x$

d. $7{,}200 = 800s$

66. The local animal shelter has 3 times as many cats as dogs. There are 27 cats at the shelter. Let x = the number of dogs at the shelter. Solve the equations $3x = 27$ to find the number of dogs at the shelter.

67. Understanding integers. Use the number line below. Write the integer value that each point represents, then write its opposite.

A _____, _____ B _____, _____

C _____, _____ D _____, _____

E _____, _____ F _____, _____

68. Plot each point on the number line below.

G (-10) H (8) I (-1) J (9) K (6) L (-3)

69. Order from least to greatest: $-6, 8, -9, 13$

70. Absolute value. Write the absolute value for each term.

a. $|-46|$

b. $|-7.35|$

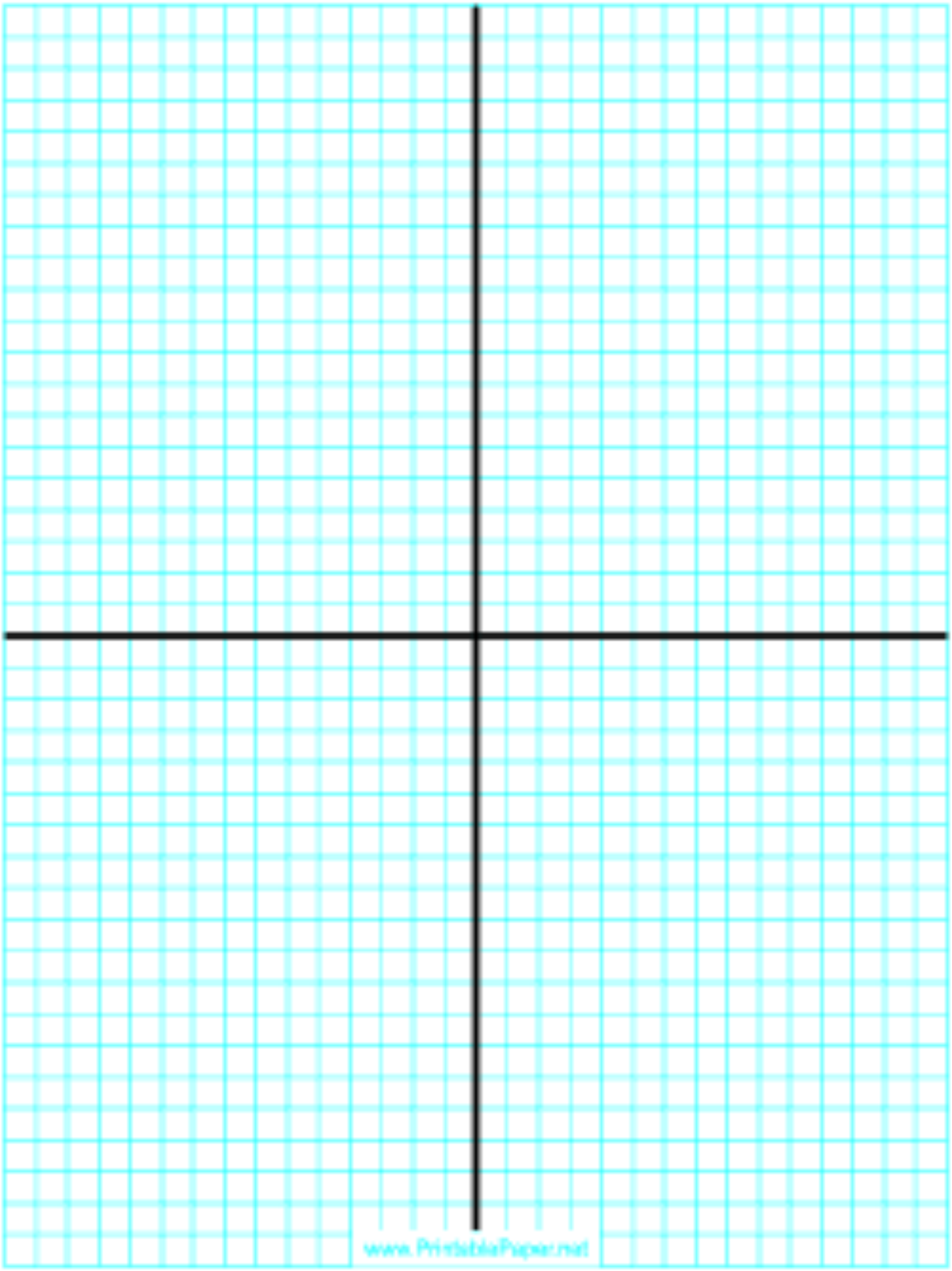
c. $\left|-\frac{1}{2}\right|$

71. The table below shows the elevations of some places in the United States. The integers represent their distances in feet above or below sea level.

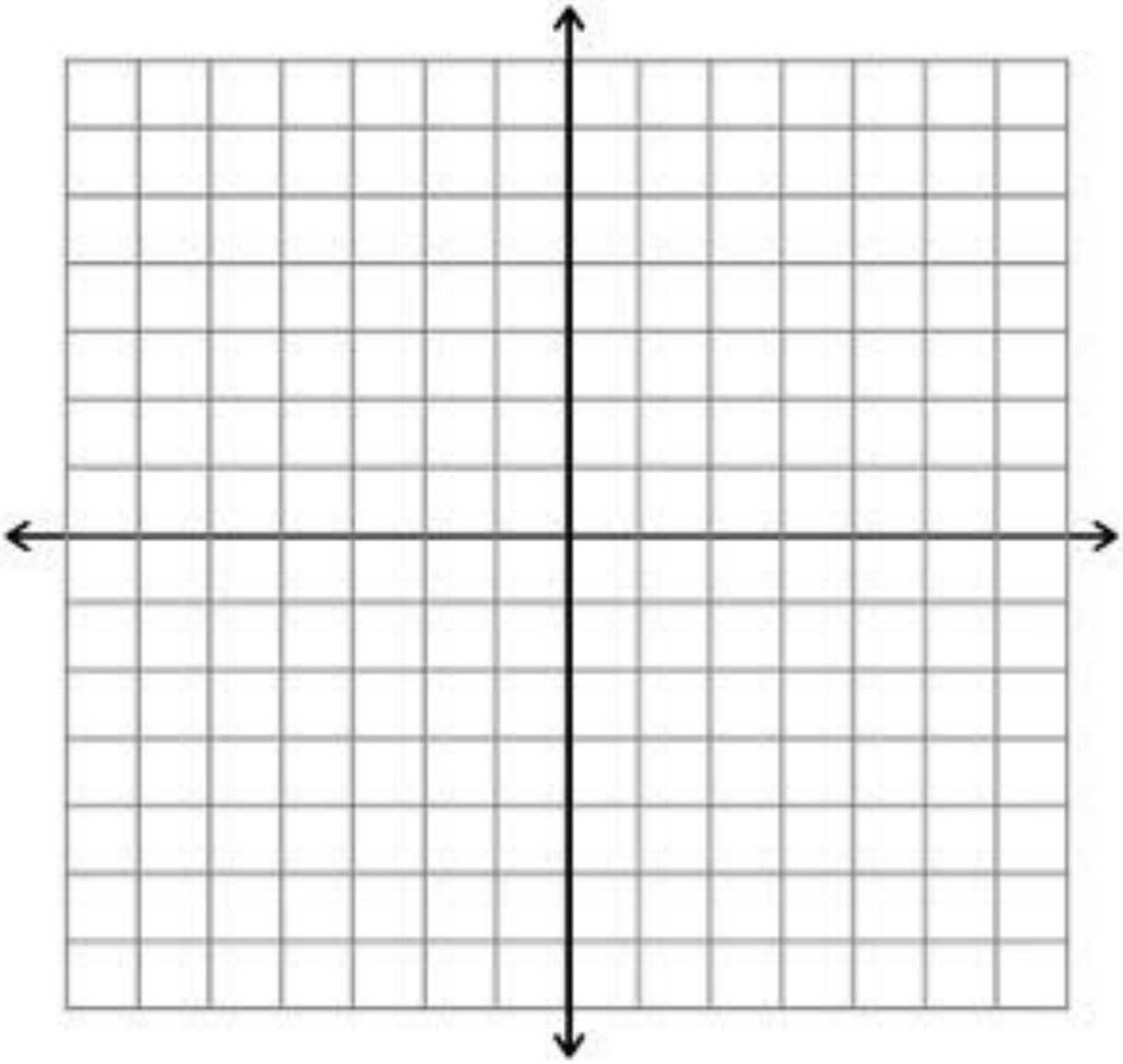
Place	Elevation
Potomac River	1
New Orleans	-8
Lake Champlain	95
Death Valley	-282

Is the place that has the greatest elevation also located the greatest distance from sea level? Explain your reasoning using an inequality.

72. Label the coordinate plane with the following: 4 quadrants, origin, X-axis, Y-axis and number lines.



73. Use the coordinate plan below to graph and label each point.



A (1, -1)

B (4, 3)

C (-4, 5)

D (5, -2)

P (-8, 0)

Q (5, -5)

S (-4, 4)

74. Find the distance between each pair of points.

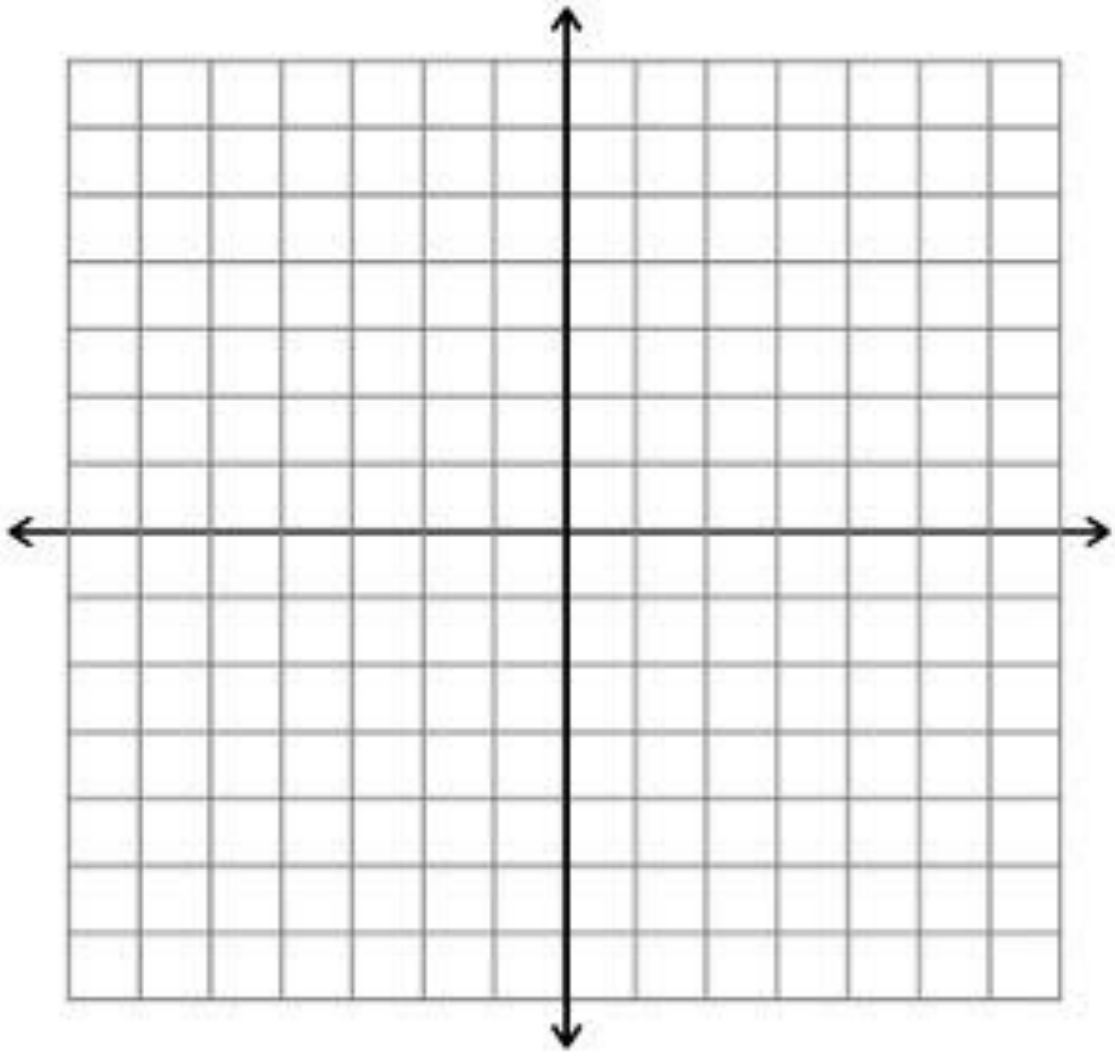
a. $(-2, 8)$ and $(7, 8)$

b. $(-6.1, -8.4)$ and $(-6.1, -4.2)$

75. Complete the table and graph. Eva's mother will add $5 to all other donations she collects for the school fund drive.

Equation: $t = a + 5$

a	***t***
10	
20	



76. Add and subtract decimals

$45.6 + 26.3$	$18.06 + 9.798$
$14.25 - 5.14$	$100.01 - 64.58$

77. Multiply decimals

6.8×53	11.2×25
518×6.82	9.89×0.745

78. Find the prime factorization of each number. If it is prime, write prime.

26	42	23
19	100	49

77. What are the factors of 25?

78. What are the factors of 100?

79. Find the GCF for each pair of numbers.

21 and 49	8 and 52
32 and 81	100 d 66

80. Kristen buys sheets of elephant stickers and sheets of tiger stickers. There are 12 elephant stickers on each sheet and 10 tiger stickers on each sheet.
What is the least number of each type of sticker that Kristen can buy so that she has an equal number of each type of sticker? Show how you know.

81. Adding integers:
    a. $-9 + 17$

    b. $65 + (-37)$

    c. $564 + 239$

    d. $-87 + (-24)$

e. $19 + 13$

f. $-19 + 13$

g. $-13 + 19$

h. $-19 + (-13)$

i. $0 + (-18)$