EDMUND W. GORDON

Rising Grade 7 Math 2025
Summer Homework Packet

BROOKLYN LAB
CHARTER SCHOOL

Name: _____

Skills Review for Students Entering Seventh Grade

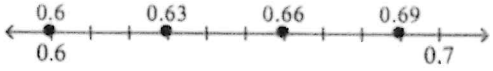
The following is a review of math skills from Sixth Grade. Please complete this review over the summer. It is due on the first day of class. The purpose of the packet is to provide an opportunity for you to refresh yourself on some of the math skills that you will be using throughout Seventh Grade. Solutions to the problems are attached for you to check your answers. If you have difficulty with any topics, it is recommended that you invest some time over the summer reviewing those particular skills. We recommend using the Khan Academy 6th Grade resources found online for extra support. Calculators should not be used on this review. Please show all work where calculations are necessary.

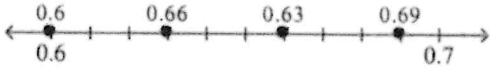
Decimals

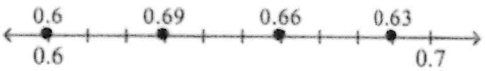
1) Round 123.456 to the hundredths place.

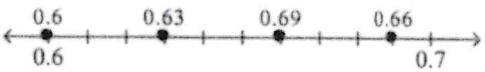
a. 100
b. 123.45
c. 123.456
d. 123.46

2) Order the set of numbers on the number line: 0.63, 0.66, 0.69, 0.6

a. 

b. 

c. 

d. 

3) 7.23 x 100

a. 723
b. 72,300
c. 7.2300
d. 0.723

4) 45.6×10^3

a. 456
b. 4.56
c. 4,560
d. 45,600

5) $58 \div 10$

a. 0.58
b. 5.8
c. 580
d. 50.8

6) $219.67 \div 10^2$

a. 21,967
b. 21.967
c. 2.1967
d. 219.67

7) $13.4 + 1.65 =$

a. 2.99
b. 29.9
c. 14.69
d. 15.05

8) $72 - 3.92 =$

a. 68.08
b. 69.92
c. 3.2
d. 69.08

9) Jane has $32.15 in her account at the end of the month. During the month she wrote checks for $98.90, $120.50, and $70. She also withdrew $20 at an ATM machine and deposited $75 from her babysitting money. How much was in her account at the beginning of the month?

a. $209.40
b. $362.25
c. $266.55
d. $241.55

10) Find the product: $1.3 \cdot 2 =$

a. 3.9
b. 4.6
c. 2.6
d. 3.3

11) $2.56 \times 6.4 =$

a. 2.570
b. 16.384
c. 25.70
d. 12.89

12) Andrew has $9. He wants to buy slices of pizza for himself, his aunt, father, and cousin. Everyone will get the same size slice. What is the biggest size Andrew can afford?

Size	**Price (tax included)**
Small	$1.49
Medium	$2.49
Large	$3.49
Extra Large	$3.99

a. Extra large
b. Medium
c. Small
d. Large

13) Hank went to the mall with his friends. He bought a pair of sunglasses for $13.25, a pair of shoes for twice that amount, and a CD for $11.50. He had $12.50 left from the money he took to the mall. How much money did he take to the mall?

a. $27.25
b. $50.05
c. $52.25
d. $63.75

14) $40.56 \div 24 =$

a. 169
b. 1.69
c. 1.71
d. 171

15) $34.96 \div 2.3 =$

a. 152
b. 1.52
c. 15.2
d. 1520

Fractions

16) Add: $\frac{1}{8} + \frac{2}{3}$

a. $\frac{3}{11}$

b. $\frac{19}{24}$

c. $\frac{3}{8}$

d. $1\frac{5}{24}$

17) Write the fraction in simplest form: $\frac{3}{15}$

a. $\frac{1}{5}$

b. $\frac{1}{3}$

c. $\frac{3}{15}$

d. $\frac{3}{5}$

18) Write the mixed number as an improper fraction: $3\frac{2}{3}$

a. $\frac{12}{3}$
b. $\frac{2}{9}$
c. $\frac{11}{3}$
d. $\frac{8}{3}$

19) Find the greatest common factor (GCF) of 20 and 60.

a. 60
b. 2
c. 20
d. 10

20) List all the factors of 40:

a. 40, 80, 120, 160…
b. 1, 2, 5, 10, 25, 50
c. 1, 2, 4, 5, 8, 10, 20, 40
d. 2, 3, 4, 10, 20, 30, 40

21) Which fractions are equivalent to $\frac{25}{45}$?

a. $\frac{5}{9}, \frac{15}{28}$
b. $\frac{30}{48}, \frac{75}{135}$
c. $\frac{5}{9}, \frac{75}{135}$
d. $\frac{35}{54}, \frac{40}{108}$

22) Write the improper fraction as a mixed number in simplest form: $\frac{41}{3}$.

a. $14\frac{2}{3}$
b. $13\frac{2}{3}$
c. 13
d. $12\frac{2}{3}$

23) Find the least common multiple (LCM) of 27 and 45.

a. 45
b. 675
c. 1,215
d. 135

24) Compare the pair of numbers using <, >, or =. $4\frac{7}{15}, 4\frac{1}{5}$

a. $4\frac{7}{15} > 4\frac{1}{5}$
b. $4\frac{7}{15} = 4\frac{1}{5}$
c. $4\frac{7}{15} < 4\frac{1}{5}$

25) Compare the pair of numbers using <, >, or =. $\frac{7}{9}, \frac{35}{45}$

a. $\frac{7}{9} < \frac{35}{45}$
b. $\frac{7}{9} > \frac{35}{45}$
c. $\frac{7}{9} = \frac{35}{45}$

26) Order the numbers from least to greatest: $0.75, 0.125, \frac{1}{2}, \frac{9}{16}$.

a. $\frac{1}{2}, 0.75, 0.125, \frac{9}{16}$
b. $\frac{1}{2}, \frac{9}{16}, 0.75, 0.125$
c. $0.125, \frac{1}{2}, \frac{9}{16}, 0.75$
d. $0.125, \frac{9}{16}, 0.75, \frac{1}{2}$

27) Find the sum: $\frac{6}{14} + \frac{7}{14} + \frac{2}{14} =$

a. $1\frac{9}{14}$
b. $2\frac{1}{7}$
c. $\frac{6}{7}$
d. $1\frac{1}{14}$

28) Find the sum: $\frac{1}{8} + \frac{1}{12} =$

a. $\frac{4}{5}$

c. $\frac{1}{5}$

b. $\frac{1}{24}$

d. $\frac{5}{24}$

29) Find the sum: $3\frac{2}{7} + 2\frac{3}{14} + 4\frac{3}{7} =$

a. $9\frac{13}{14}$

c. $9\frac{9}{28}$

b. $10\frac{1}{14}$

d. $9\frac{8}{21}$

30) Find the difference: $17\frac{5}{17} - 7\frac{6}{17} =$

a. $9\frac{16}{17}$

c. $9\frac{1}{17}$

b. $10\frac{1}{17}$

d. $10\frac{16}{17}$

31) Find the product: $8\frac{2}{5} \cdot 7\frac{1}{2} =$

a. $56\frac{1}{5}$

c. $56\frac{2}{10}$

b. 63

d. $60\frac{1}{2}$

32) Find the product and simplify if needed: $\frac{3}{14}\ of\ \frac{10}{9}$

a. $\frac{15}{42}$

b. $\frac{5}{21}$

c. $\frac{2}{7}$

d. $\frac{5}{6}$

33) At a warehouse, boxes of merchandise are placed on shelves in stacks that are 18 boxes high. If each box is $3\frac{3}{7}$ inches high, how tall is the stack of boxes?

a. $61\frac{5}{7} inches$

b. $\frac{4}{21}\ inches$

c. $\frac{7}{432}\ inches$

d. $5\frac{1}{4}\ inches$

34) Find the quotient: $\frac{5}{6} \div \frac{6}{7} =$

a. $1\frac{1}{35}$

b. $\frac{5}{7}$

c. $\frac{35}{36}$

d. $\frac{7}{5}$

35) Find the quotient: $19\frac{1}{2} \div 2\frac{3}{5} =$

a. $\frac{10}{13}$

b. $\frac{2}{15}$

c. $7\frac{1}{2}$

d. $50\frac{7}{10}$

Area, Surface Area, and Volume

36) Estimate the area of a picture measuring $3\frac{1}{7}\ feet\ by\ 8\frac{1}{9}\ feet.$

a. 27 ft^2
b. 24 ft^2
c. 36 ft^2
d. 32 ft^2

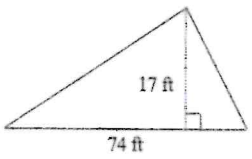
37) Find the area of the rectangle with length 27 inches and width 40 inches.

a. 67 in^2
b. 134 in^2
c. 1,080 in^2
d. 10,800 in^2

38) Megan wants to build a fence around her pool. The pool is 28 feet long by 23 feet wide. The fence is to be 15 feet from the edge of the pool on all sides. How many feet of fencing will she need?

a. 102 ft
b. 644 ft
c. 3074 ft
d. 222 ft

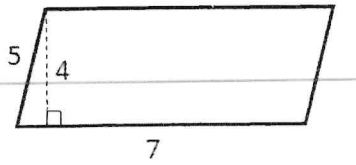
39) Find the area of the triangle.



Not drawn to scale

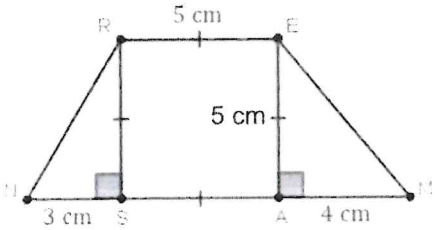
a. 91 ft^2
b. 148 ft^2
c. 182 ft^2
d. 629 ft^2

40) Find the area of the parallelogram.



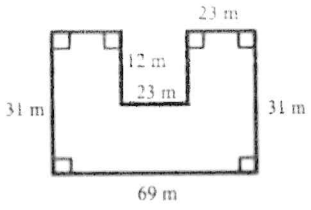
a. 35 units^2
b. 28 units^2
c. 24 units^2
d. 16 units^2

41) Find the area of the trapezoid



a. 60 cm^2
b. 42.5 cm^2
c. 15 cm^2
d. 20 cm^2

42) Find the area of the complex figure.

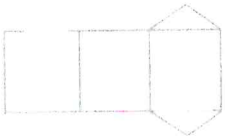


Not drawn to scale

a. 2,139 m^2
b. 1,863 m^2
c. 135 m^2
d. 2,415 m^2

43) Which net forms a triangular pyramid?


A.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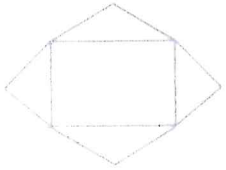
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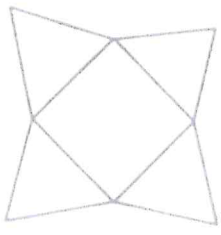
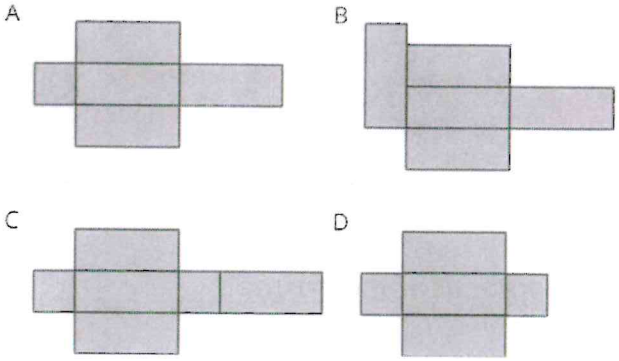
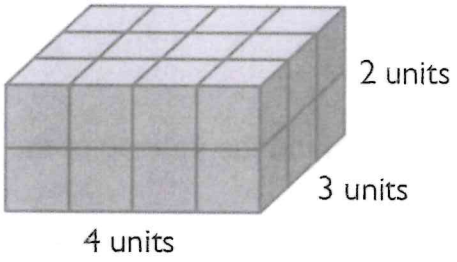

D.

44) Which net forms a rectangular prism?



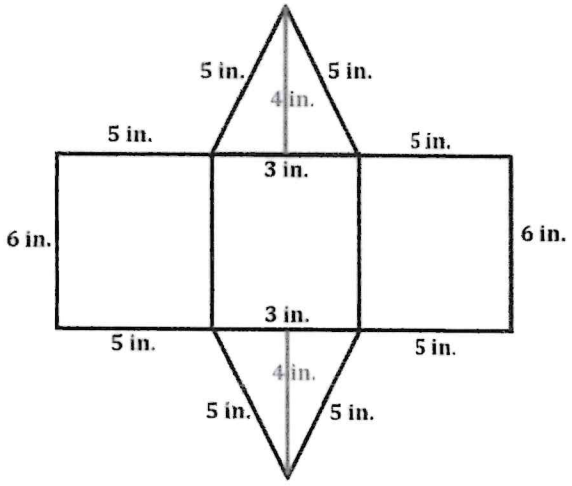
45) Find the surface area of the rectangular prism.

a. 24 units^3
b. 12 units^2
c. 8 units^2
d. 52 units^2



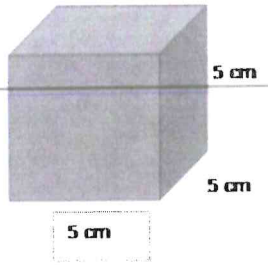
46) Find the surface area of the triangular prism.

a. 90 in^2
b. 102 in^2
c. 114 in^2
d. 60 in^2



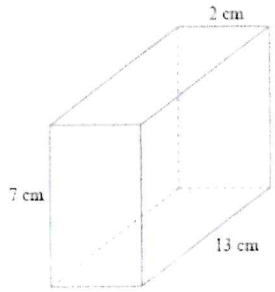
47) Find the surface area of the cube.

a. 125 cm^2
b. 125 cm^3
c. 150 cm^2
d. 25 cm^2



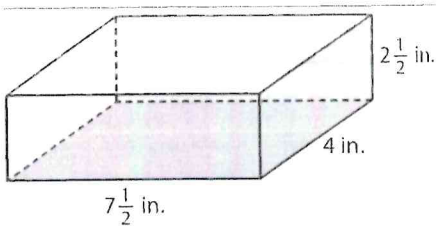
48) Find the volume of the prism.

a. 262 cm^2
b. 91 cm^2
c. 14 cm^2
d. 182 cm^3



49) Find the volume of the prism.

a. 30 in^3
b. 18.75 in^3
c. 10 in^3
d. 75 in^3



Ratio and Rate

50) Lauren sold 18 brownies, 23 cookies, and 10 donuts at a bake sale. Write the ratio of cookies to brownies sold.

a. 23:10
b. 18:23
c. 23:18
d. 10:18

51) Which ratio is equivalent to $\frac{9}{15}$?

a. $\frac{1}{5}$

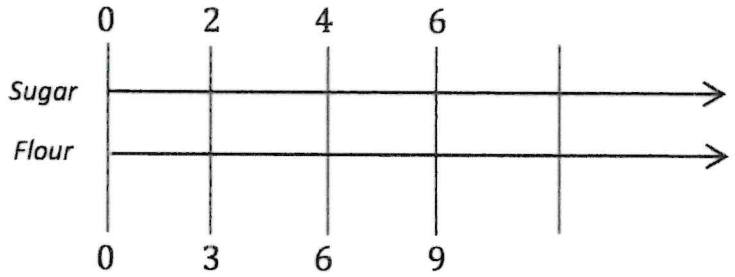
b. $\frac{3}{9}$

c. $\frac{18}{30}$

d. $\frac{27}{30}$

52) A cookie recipe calls for 3 cups of flour for every 2 cups of sugar. If you used 12 cups of flour to make a large batch of cookies, how many cups of sugar would you use?

a. 12
b. 8
c. 6
d. 18



53) Complete the ratio table.

9	5
18	10
27	15
36	
45	25

a. 20
b. 30
c. 18
d. 16

54) Martha needs 28 strawberries for every 4 smoothies she makes. Use the table to determine how many strawberries she needs for 3 smoothies.

a. 7
b. 14
c. 21
d. 12

Strawberries	Smoothies
28	4

55) A van travels 180 miles on 6 gallons of gas. How many gallons will it need to travel 750 miles?

a. 75 gallons
b. 25 gallons
c. 50 gallons
d. 225 gallons

56) Chad ran 5 miles in 50 minutes. Jeffrey ran 10 miles in 1 hour and 40 minutes. Choose the statement below that is true.

a. Chad ran faster than Jeffrey.
b. Jeffrey ran faster than Chad.
c. Chad and Jeffrey ran at the same speed.
d. Chad ran slower than Jeffrey.

57) Find the unit rate: $5.20 for 8 cans

a. $0.55 per can
b. $0.60 per can
c. $0.65 per can
d. $0.70 per can

58) Determine which is the better buy:

a. $5.79 for 35 oz
b. $2.49 for 16 oz
c. They have the same unit price

35 OZ
$5.79

16 OZ
$2.49

59) Convert 13,200 feet to miles:

a. 2 miles
b. 69,000 miles
c. 2.5 miles
d. 66,000 miles

60) Convert 5.5 m to cm:

a. 55 cm
b. 550 cm
c. 0.55 cm
d. 0.055 cm

61) Convert 15 inches to centimeters:

a. 38.1 cm
b. 5.9 cm
c. 22.5 cm
d. 10 cm

62) Convert 4 gallons to Liters:

a. 1.1 L
b. 7.6 L
c. 15.1 L
d. 16 L

Percent

63) Write 4% as a decimal.

a. 0.004
b. 4
c. 0.04
d. 0.4

64) Write 0.2 as a percent.

a. 0.02%
b. 2%
c. 20%
d. 0.2%

65) 45 is what percent of 150?

a. 55%
b. 67.5%
c. 0.3%
d. 30%

66) Scott earned $200 babysitting. He saved 30% of his money. How much did he save?

a. $70
b. $60
c. $65
d. $75

67) Everyone in Sam's class has to do a science project. Out of the 30 students, 80% have completed their projects. How many students still need to do their projects?

a. 6 students
b. 54 students
c. 110 students
d. 24 students

68) What is 60% of 135?

a. 81
b. 22.5
c. 75
d. 44

Expressions, Equations and Inequalities

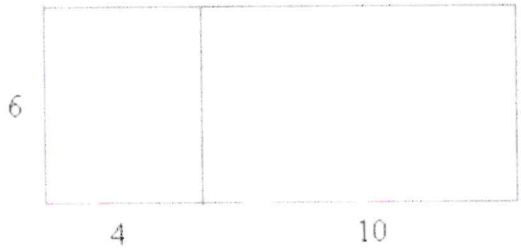
69) Evaluate the expression: $46 - 5m$ for $m = 6$

a. 51
b. 76
c. 41
d. 16

70) Fresh Baked Bread Company charges a shipping fee of \$7 for all orders. Each loaf of bread is priced at \$5. If x is the number of loaves of bread ordered, write an expression for the total cost of an order.

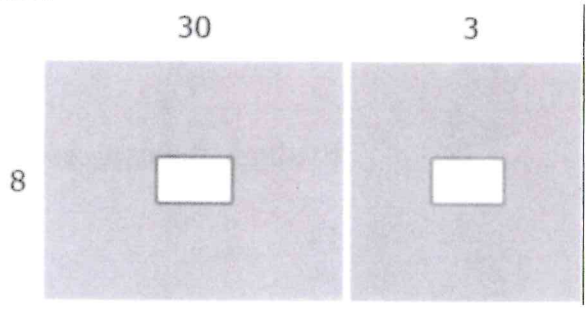
a. $5 + 7x$
b. $(5)7x$
c. $(5 + 7) + x$
d. $5x + 7$

71) Which expression represents the area of the larger, outer rectangle?



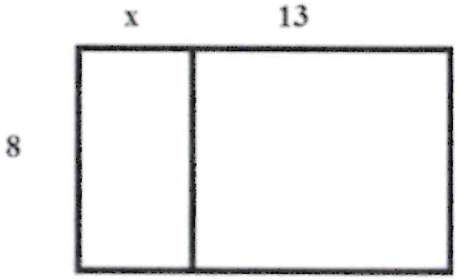
a. $4(6 + 10)$
b. $10(6 + 4)$
c. 6 x 4 x 10
d. $6(4 + 10$

72) Use the model to multiply 8 x 33.



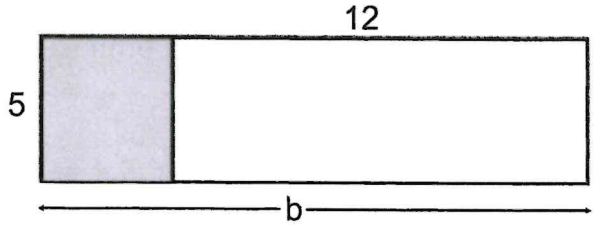
a. 240
b. 264
c. 24
d. 480

73) Use the model to simplify 8(x + 13).



a. $x^8 + 13$
b. $8x + 13$
c. $8x + 104$
d. $x^8 + 104$

74) Which expression represents the area of the shaded rectangle shown in the model?



a. 5(b – 12)
b. 5(b + 12)

75) Simplify the expression using the distributive property. 7(x + 5)

a. 7x + 5
b. 7x + 35
c. 7 + x + 5
d. $x^7 + 5$

76) Write the expression $v \cdot v \cdot v \cdot v \cdot v \cdot v \cdot v$ using an exponent. Name the base and the exponent.

a. v^7; the base is v, the exponent is 7
b. v^7; the base is 7, the exponent is v
c. 7^v; the base is v, the exponent is 7
d. 7^v; the base is 7, the exponent is v

77) Simplify the expression: 3^4

a. 12
b. 9
c. 27
d. 81

78) Evaluate the expression $8 + 2^3$

a. 14
b. 16
c. 30
d. 1000

79) Solve the equation: $104 = v + 54$.

a. 50
b. 150
c. 200
d. 100

80) What is the correct move to make to solve the equation in one step?

$x - 67 = 119$

a. Add 67 to both sides
b. Subtract 67 from both sides
c. Add 119 to both sides
d. Subtract 119 from both sides

81) Solve the equation: $5.4 = 0.9x$

a. 6.3
b. 6
c. 7.3
d. 12

82) What is the correct move to make to solve the equation in one step?

$\frac{x}{6} = 216$

a. Divide each side by 6
b. Add 6 to each side
c. Multiply each side by 216
d. Multiply each side by 6

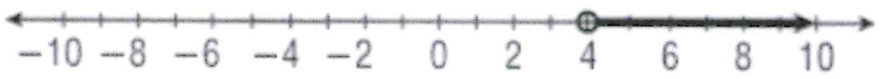
83) Write an inequality to represent the given situation: Liam goes to the pool at least 5 times per week in the summer.

a. $x < 5$
b. $x > 5$
c. $x \leq 5$
d. $x \geq 5$

84) Write an inequality to represent the given situation: Trevor made more than \$125 mowing lawns this week.

a. $x > \$125$
b. $x < \$125$
c. $x \leq \$125$
d. $x \geq \$125$

85) Which inequality is represented in the graph below:

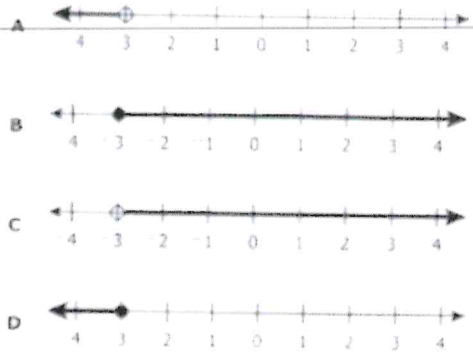


a. $x < 4$
b. $x > 4$
c. $x \leq 4$
d. $x \geq 4$

86) Which inequality is represented in the graph below:

a. $x < 1$
b. $x > 1$
c. $x \leq 1$
d. $x \geq 1$

87) Which graph shows the inequality: $x \leq -3$



Integers and Rational Numbers

88) Compare the integers using <, >, or =: 5, -12

a. $5 < -12$
b. $5 = -12$
c. $5 > -12$

89) Compare the integers using <, >, or =: -10, -3

a. $-10 < -3$
b. $-10 = -3$
c. $-10 > -3$

90) Which integer is greater than -7?

a. -8
b. -1
c. -9
d. -11

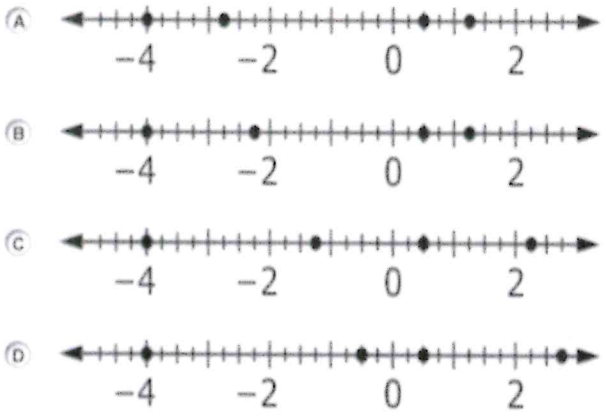
91) What is the opposite value of 6?

a. -6
b. 5
c. 6
d. -4

92) Which integer is less than -3?

a. 0
b. -1
c. -4
d. 2

93) Which number line shows the correct location of each rational number?: $\frac{1}{2}, -4, -2\frac{3}{4}, 1\frac{1}{4}$

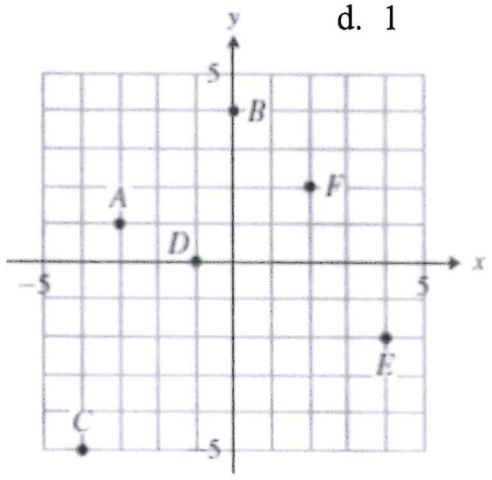


94) Find the absolute value. $|4|$

a. 0
b. -4
c. 4
d. 1

95) Find the absolute value. $|-12|$

a. 12
b. -12
c. 0
d. 1



96) Name the ordered pair for Point E:

a. (4, -2)
b. (-2, 4)
c. (2, 4)
d. (2, -4)

97) Which point is located at (-1, 0)?

a. A
b. B
c. C
d. D

98) In which quadrant is point F?

a. Quadrant I
b. Quadrant II
c. Quadrant III
d. Quadrant IV

99) Name the coordinates of the point that would be a reflection of Point A across the x axis:

a. (3, 1)
b. (-3, -1)
c. (-3, 1)
d. (3, -1)

100) Determine the distance between the points (-4,4) and (3, 4) on the coordinate plane:

a. 4
b. 1
c. 8
d. 7