

**Mrs. Reiss**

**Entering Algebra 1  
Summer Math  
Homework**

Name: \_\_\_\_\_

**This packet contains 2 sections:**

- Part 1 is a multiple choice skill review.
- Part 2 is a multiple choice Pre-Algebra review.

All work must be done either in the packet or on a separate sheet of paper. If you decide to do your work on a separate sheet of paper, please make sure you label each section and problem. Work will be handed in on the first day of school.

Please bubble in your final answers on the corresponding answer sheets. Answer sheets must be turned in with your work. **YOU WILL NOT RECEIVE CREDIT FOR TURNING IN ONLY THE ANSWER SHEETS!**

A good plan of attack would be to do 20 problems per week. Please don't wait until the last minute. That defeats the purpose of keeping your math skills fresh and ready for the first day of school.

If you have any questions about the Summer Math Homework, please contact Mrs. Reiss or Ms. Cankar.

Mrs. Reiss: [jreiss@communityschoolnaples.org](mailto:jreiss@communityschoolnaples.org)

Ms. Cankar: [bcankar@communityschoolnaples.org](mailto:bcankar@communityschoolnaples.org)

# **PART 1**



Summer Math '06 Part 1

**Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

**Name the property shown.**

- \_\_\_ 1.  $5 \cdot 7 = 7 \cdot 5$   
a. Identity Property of Multiplication  
b. Associative Property of Multiplication  
c. Commutative Property of Multiplication  
d. Identity Property of Addition
- \_\_\_ 2.  $(8 \cdot 5) \cdot 11 = 8 \cdot (5 \cdot 11)$   
a. Commutative Property of Multiplication  
b. Commutative Property of Addition  
c. Identity Property of Multiplication  
d. Associative Property of Multiplication
- \_\_\_ 3. Suppose you average 52 mi/h traveling on the highway. If you drive for 5 hours, how far will you travel?  
a. 260 miles      b. 250 miles      c. 350 miles      d. 240 miles
- \_\_\_ 4. Which choice shows the next step needed to simplify  $6(12) - 6(5)$  using the Distributive Property?  
a.  $6(12 - 5)$       b.  $12(6 - 5)$       c.  $12(12 - 5)$       d.  $5(12 - 6)$

**Simplify the expression.**

- \_\_\_ 5.  $6(6) + 6(4)$   
a. 60                      b. 10                      c. 16                      d. 12
- \_\_\_ 6.  $(10)9 - (10)11$   
a. -2                      b. -20                      c. 200                      d. 8
- \_\_\_ 7.  $3x + 3x$   
a.  $6x$                       b.  $9x$                       c.  $6x^2$                       d. 6
- \_\_\_ 8.  $7d + 12 - 4d - 3$   
a.  $19d - 7$                       b.  $3d + 9$                       c.  $3d^2 + 9$                       d.  $12d$
- \_\_\_ 9.  $2c + 2 + 5c$   
a.  $9c$                       b.  $9c^2$                       c.  $7c + 2$                       d.  $4c + 5$
- \_\_\_ 10.  $9 - 5(-7x + 5)$   
a.  $35x + 34$                       b.  $-28x + 20$                       c.  $35x + 14$                       d.  $35x - 16$

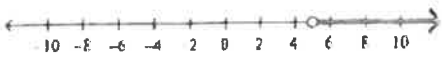
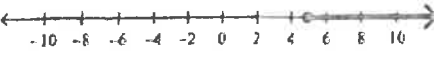

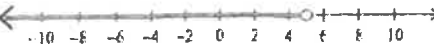
Use the Distributive Property to multiply.

- \_\_\_ 11.  $5(b + 8)$   
 a.  $5b + 40$       b.  $5b + 8$       c.  $5b + 13$       d.  $8b + 40$
- \_\_\_ 12.  $9(4m + 1)$   
 a.  $36m + 1$       b.  $36m + 9$       c.  $13m + 9$       d.  $45m$
- \_\_\_ 13.  $5(2t - 5)$   
 a.  $10t - 5$       b.  $7t - 25$       c.  $10t - 25$       d.  $-15t$
- \_\_\_ 14. Name the constant(s) in the expression  $7x + 9y + 3$ .  
 a.  $x$  and  $y$       b.  $7$       c.  $9$       d.  $3$

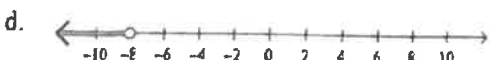
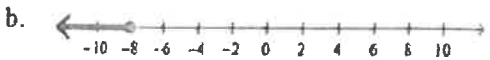
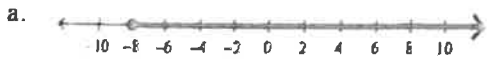
Solve the equation.

- \_\_\_ 15.  $y - 5 = -8$   
 a.  $13$       b.  $-3$       c.  $-40$       d.  $-13$
- \_\_\_ 16.  $n - 40 - 26 = -35$   
 a.  $-31$       b.  $-101$       c.  $-21$       d.  $31$
- \_\_\_ 17.  $-7b = 21$   
 a.  $14$       b.  $-3$       c.  $28$       d.  $-147$
- \_\_\_ 18.  $-5 = \frac{c}{7}$   
 a.  $-\frac{7}{5}$       b.  $-12$       c.  $-\frac{5}{7}$       d.  $-35$
- \_\_\_ 19. Suppose you have 30 CDs. You know that you have 11 more CDs than your friend. Write and solve an equation to find the number of CDs your friend has.  
 a.  $n - 11 = 30; 41$       c.  $30 + 11 = n; 41$   
 b.  $30 + n = 11; -19$       d.  $n + 11 = 30; 19$
- \_\_\_ 20. The odometer in your mother's car reads 2056 miles less than the odometer in your uncle's car. Your mother's odometer reads 22010 miles. About how many miles are on the odometer of your uncle's car?  
 a. 19900 mi      c. 22000 mi  
 b. 24100 mi      d. 2100 mi

Graph the solutions of the inequality on a number line.

- \_\_\_ 21.  $c < 5$
- a.       c. 
- b.       d. 

22.  $-8 > q$



23. Write an inequality for the graph.



a.  $x < 3$

b.  $x \leq 3$

c.  $x \geq 3$

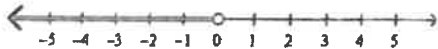
d.  $x > 3$

24. Write an inequality for the sentence. Graph the solution on a number line.

$c$  is not less than zero.

a.  $c < 0$

c.  $c \leq 0$



b.  $c > 0$

d.  $c \geq 0$

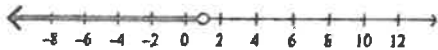


Solve the inequality. Graph the solutions.

25.  $h - 2 < -1$

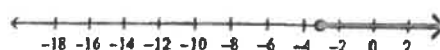
a.  $h < 1$

c.  $h < -3$



b.  $h > 1$

d.  $h > -3$



26. Together, Louisa and Jill scored more than 30 points in the basketball game. If Jill scored 12 points, how many points  $P$  did Louisa score?

a.  $P > 18$

b.  $P > 42$

c.  $P < 42$

d.  $P < 18$

Solve the inequality.

27.  $5n > -25$

a.  $n > -20$

b.  $n > -5$

c.  $n > 30$

d.  $n < -5$

28.  $42 < -6d$

a.  $d < -7$

b.  $d < 36$

c.  $d > -7$

d.  $d < -48$

29.  $\frac{r}{6} \leq 3$

a.  $r \geq 18$

b.  $r \leq 18$

c.  $r \leq \frac{1}{2}$

d.  $r \leq 9$

30.  $\frac{y}{-6} > 10$

a.  $y < -16$

b.  $y > -60$

c.  $y > 4$

d.  $y < -60$

31.  $\frac{1}{4}c < 8$

a.  $c < -4$

b.  $c < 32$

c.  $c > 32$

d.  $c > 12$

32. Jose has 9 more comic books than Robin. Robin has 5 more comic books than Lee.

a. If Jose has 23 comic books, how many comic books does Robin have?

b. How many comic books does Lee have?

a. Robin has 14 comic books; Lee has 9 comic books

b. Robin has 14 comic books; Lee has 18 comic books

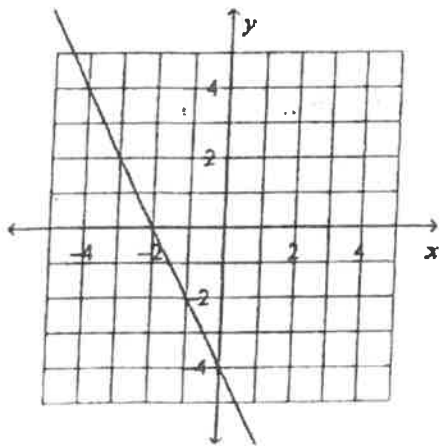
c. Robin has 32 comic books; Lee has 37 comic books

d. Robin has 9 comic books; Lee has 5 comic books

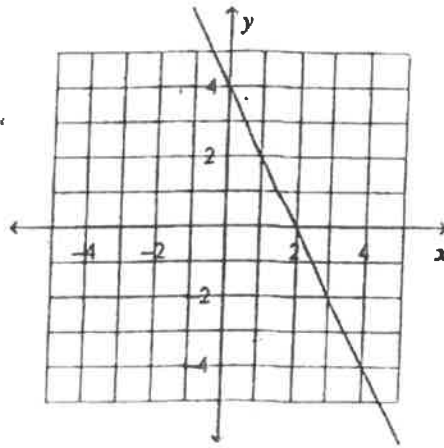
33. Graph the linear equation.

$y = -2x - 4$

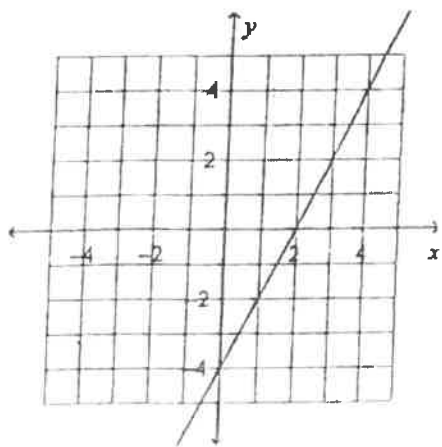
a.



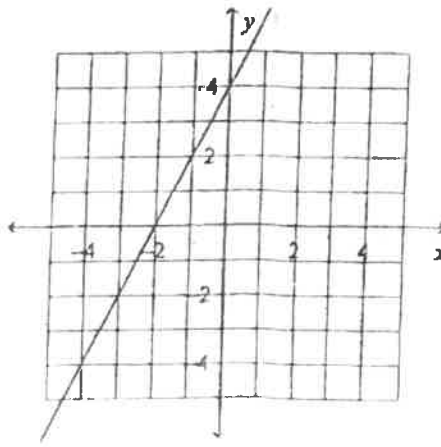
c.



b.



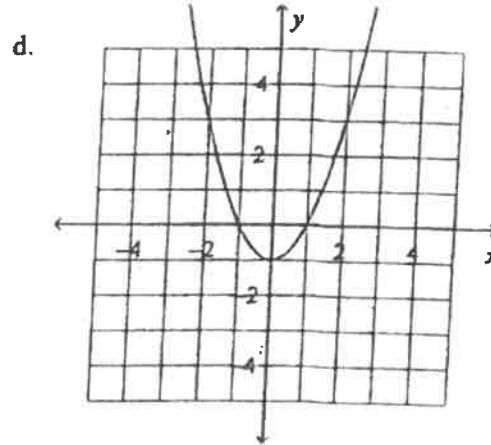
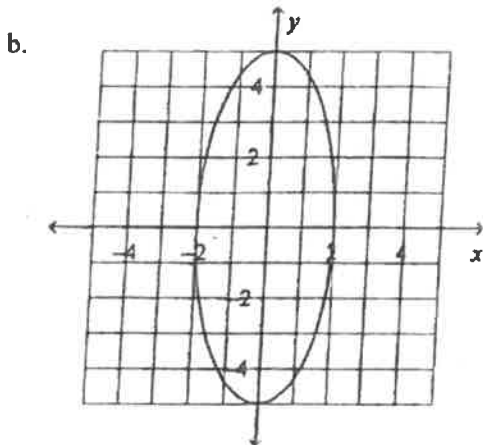
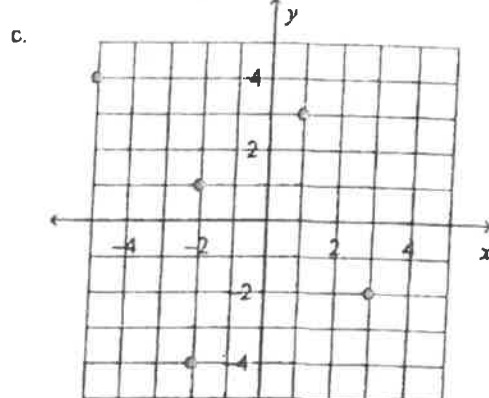
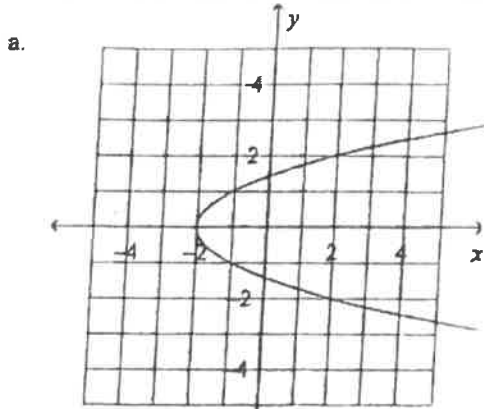
d.





34.

Use the vertical-line test to determine which graph represents a function.



35.

Find the solution of  $y = 6x + 1$  for  $x = 5$ .

- a.  $(5, \frac{2}{3})$       b.  $(-29, 5)$       c.  $(5, 36)$       d.  $(5, 31)$

36.

Which ordered pair is a solution of the equation  $5x + y = -23$ ?

- a.  $(-3, -4)$       b.  $(-5, -3)$       c.  $(-4, -3)$       d.  $(-3, -5)$

37.

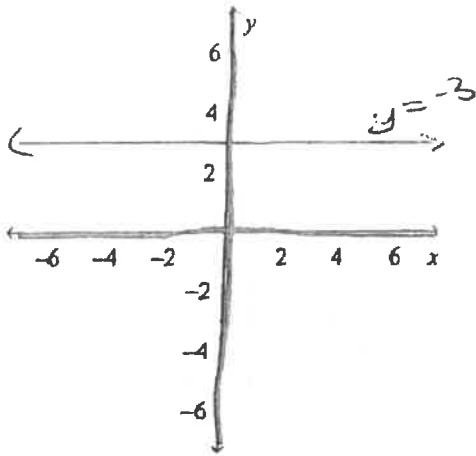
Dennis takes care of private swimming pools. He charges \$50 to travel to a home and then \$30 per hour. The equation  $t = 50 + 30h$  models the total charge  $t$  for  $h$  hours of service. Which ordered pair  $(h, t)$  is NOT a solution for the equation?

- a.  $(8, 290)$       b.  $(10, 350)$       c.  $(2, 110)$       d.  $(3, 180)$

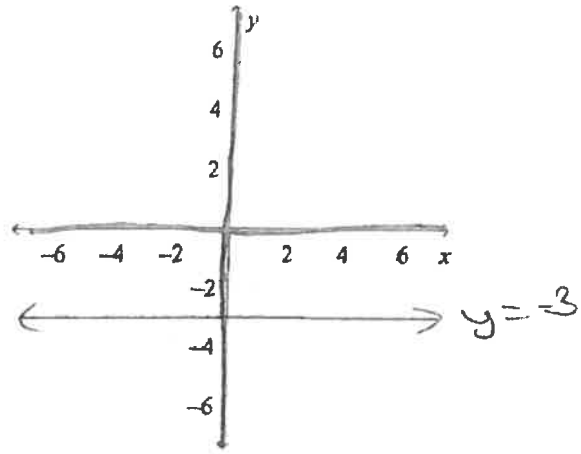
38

Graph.

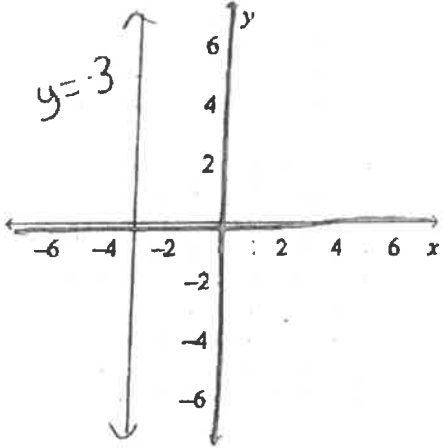
$y = -3$   
a.



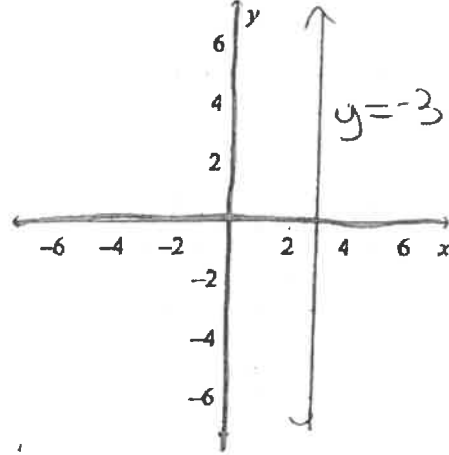
c.



b.



d.

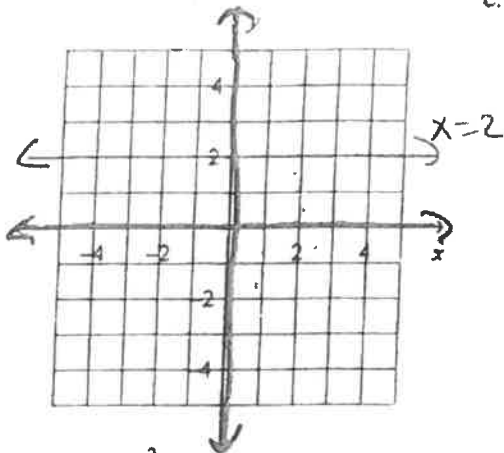


39

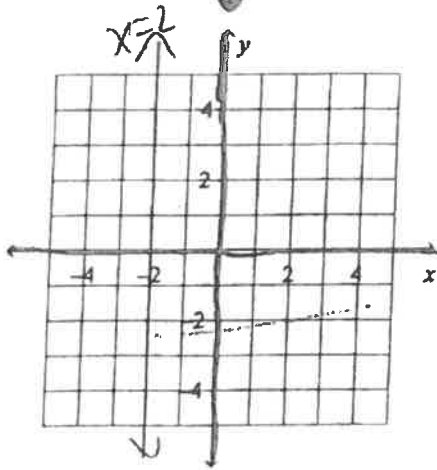
Graph

$x=2$

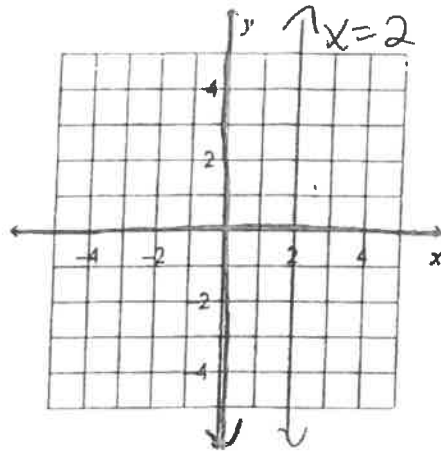
a.



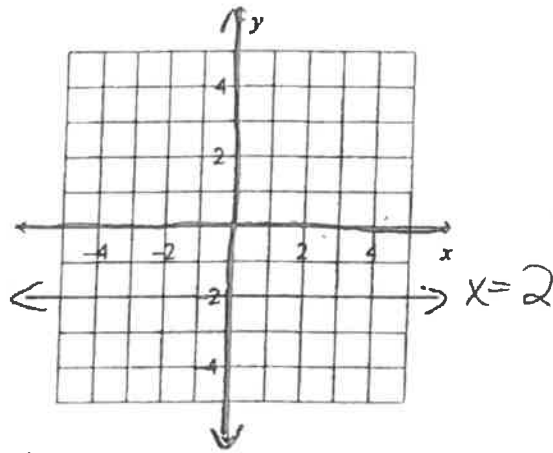
b.



c.



d.

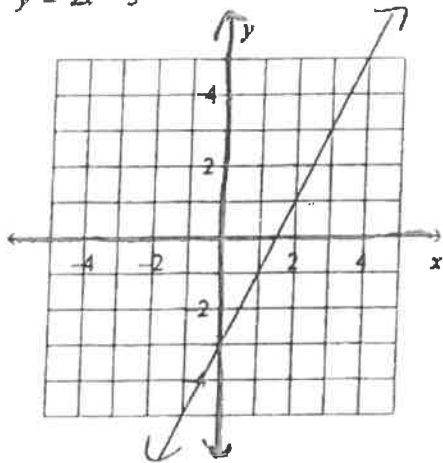


Solve the equation for  $y$ . Then graph the equation.

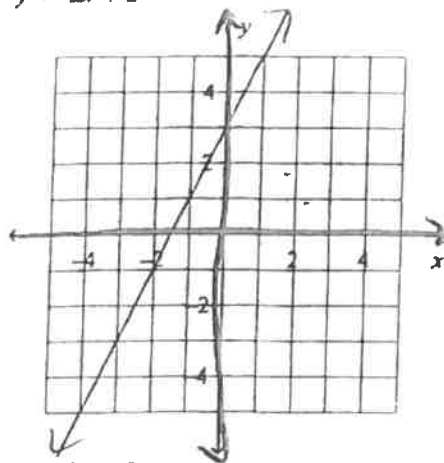
40.

$$2x + y = 3$$

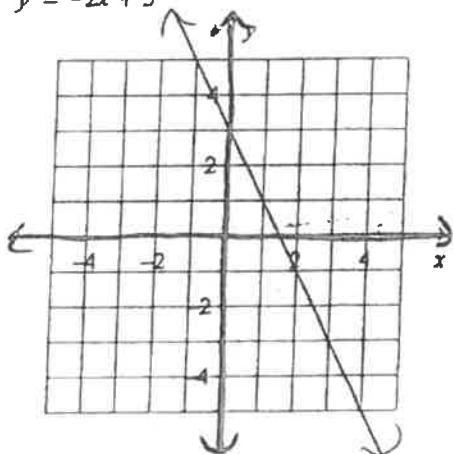
a.  $y = 2x - 3$



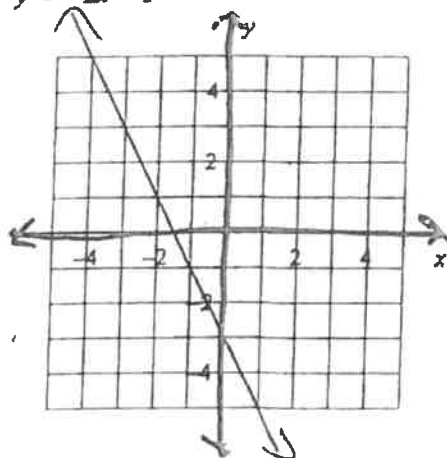
c.  $y = 2x + 3$



b.  $y = -2x + 3$



d.  $y = -2x - 3$

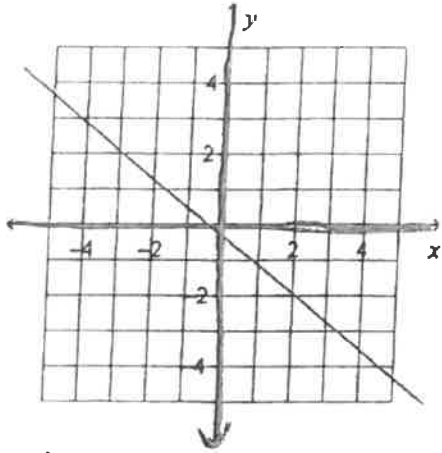


41b

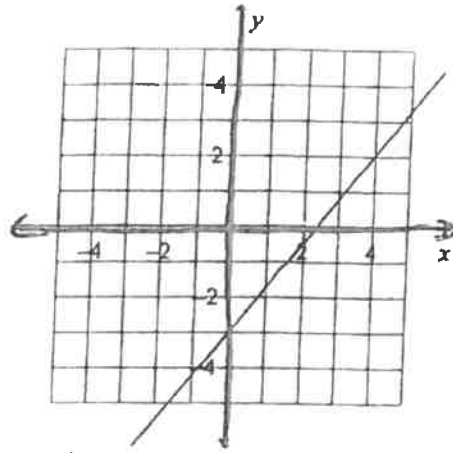
Graph.

$$5x - 4y = 12$$

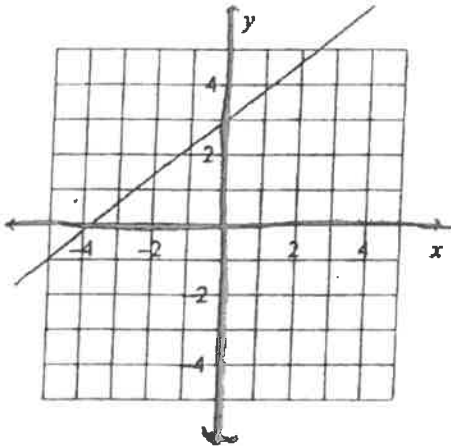
a.  $y = -\frac{5}{4}x - 3$



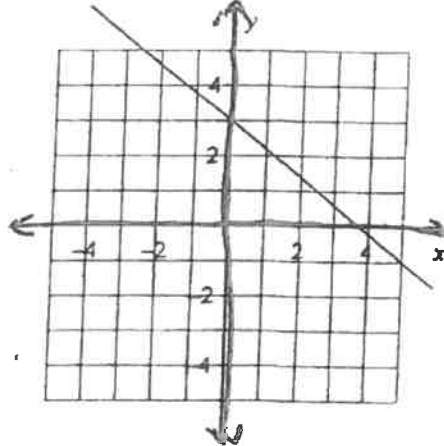
c.  $y = \frac{5}{4}x - 3$



b.  $y = \frac{4}{5}x + 3$



d.  $y = -\frac{4}{5}x + 3$



42.

Alexandra has a home-based business putting on children's parties. She charges \$60 to design the party and then \$4.00 per child. Write a function rule that relates the total cost of the party to the number of children  $n$ .

a.  $f(n) = 4 - 55n$

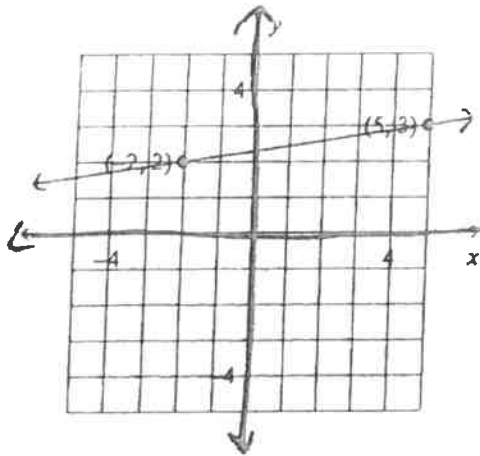
c.  $f(n) = 4n - 55$

b.  $f(n) = 4 + 60n$

d.  $f(n) = 60 + 4n$

43.

Find the slope of the line.



- a.  $\frac{1}{7}$       b.  $-\frac{1}{7}$       c.  $-7$       d.  $7$

44.

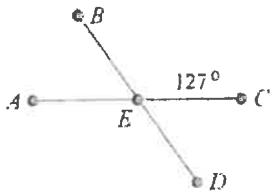
Write a rule for the linear function in the table.

$x$	$f(x)$
-4	16
0	0
4	-16
8	-32

- a.  $f(x) = -4x$       b.  $f(x) = x + 16$       c.  $f(x) = 4x$       d.  $f(x) = -\frac{1}{4}x$

45.

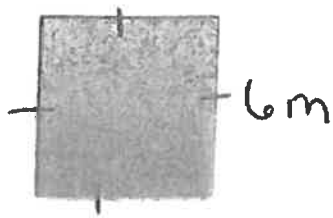
Find the measure of  $\angle AEB$  for  $m\angle BEC = 127^\circ$ .



- a.  $127^\circ$       b.  $254^\circ$       c.  $106^\circ$       d.  $53^\circ$

Find the area of each. (Figures are not drawn to scale)

46.



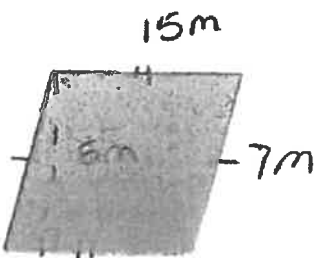
a. 24 m

b. 36 m

c.  $24m^2$

d.  $36m^2$

47.



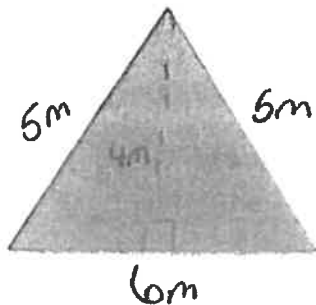
a.  $105m^2$

b.  $35m^2$

c.  $44m^2$

d.  $75m^2$

48.



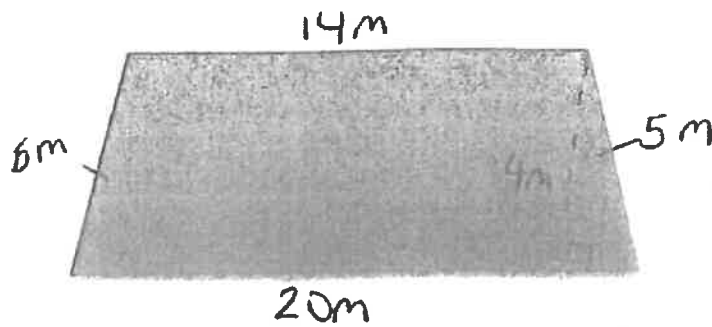
a.  $12m^2$

b.  $24m^2$

c.  $30m^2$

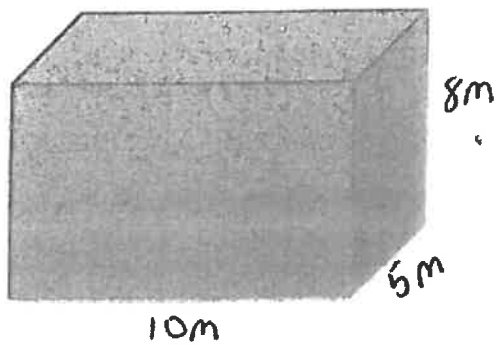
d.  $15m^2$

49. Find the area.



- a.  $80m^2$     b.  $68m^2$     c.  $100m^2$     d.  $70m^2$

50. Find the Surface Area.



- a.  $400m^2$     b.  $200m^2$     c.  $170m^2$     d.  $340m^2$



Name

Quiz

Class

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- 1 (A) (B) (C) (D) 18 (A) (B) (C) (D) 35 (A) (B) (C) (D)  
2 (A) (B) (C) (D) 19 (A) (B) (C) (D) 36 (A) (B) (C) (D)  
3 (A) (B) (C) (D) 20 (A) (B) (C) (D) 37 (A) (B) (C) (D)  
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- 9 (A) (B) (C) (D) 26 (A) (B) (C) (D) 43 (A) (B) (C) (D)  
10 (A) (B) (C) (D) 27 (A) (B) (C) (D) 44 (A) (B) (C) (D)  
11 (A) (B) (C) (D) 28 (A) (B) (C) (D) 45 (A) (B) (C) (D)  
12 (A) (B) (C) (D) 29 (A) (B) (C) (D) 46 (A) (B) (C) (D)  
13 (A) (B) (C) (D) 30 (A) (B) (C) (D) 47 (A) (B) (C) (D)  
14 (A) (B) (C) (D) 31 (A) (B) (C) (D) 48 (A) (B) (C) (D)  
15 (A) (B) (C) (D) 32 (A) (B) (C) (D) 49 (A) (B) (C) (D)  
16 (A) (B) (C) (D) 33 (A) (B) (C) (D) 50 (A) (B) (C) (D)  
17 (A) (B) (C) (D) 34 (A) (B) (C) (D)

Mrs. Reiss Summer Math HW Part 1 (6759)



# **PART 2**

C

C

C

1.  $9 + (-3) =$

- a) -12      b) 6      c) 12      d) -6

2.  $-12 \div (-6) =$

- a) -2      b) -6      c) 2      d) 6

3.  $(-2)^5 =$

- a) 32      b) -10      c) 10      d) -32

4.  $(-\frac{1}{3})(-\frac{1}{2})(-3)(-2) =$

- a) -1      b) 1      c)  $5\frac{5}{6}$       d) 30

5.  $3a - (2a - b) =$

- a)  $5a - b$       b)  $a + b$       c)  $5a + b$       d)  $a - b$

6.  $(\frac{3xy^2}{5ab^3})(\frac{10a^2b}{xy^3}) =$

- a)  $\frac{6ax}{b^3y}$       b)  $\frac{6ay}{b^2}$       c)  $\frac{6a}{yb^2}$       d)  $\frac{5a}{yb^2}$

7. If  $x=4$ , then  $\sqrt{\frac{(x-1)^2 + 2^x}{x}} =$

- a)  $1\frac{1}{4}$       b)  $\sqrt{6}$       c)  $2\frac{1}{2}$       d)  $6\frac{1}{4}$

8. A number,  $n$ , is divided by 4. Three less than the result would be represented by

- a)  $\frac{4}{n} - 3$       b)  $3 - \frac{n}{4}$       c)  $\frac{1}{n}$       d)  $\frac{n}{4} - 3$

9.  $(-2) - (-2) + (2) =$

- a) -2            b) 2            c) 4            d) 6

10.  $(-2) - (-8) =$

- a) -10            b) -6            c) 6            d) 16

11.  $(-\frac{5}{6}) \div (-\frac{1}{2}) =$

- a)  $\frac{5}{12}$             b)  $\frac{-5}{3}$             c)  $\frac{-5}{12}$             d)  $\frac{5}{3}$

12.  $(-1)(-2)(-3)(4) =$

- a) -24            b) -2            c) 24            d) 36

13.  $5c^3 + 2d^3 - 3c^3 =$

- a)  $2c^6 - 2d^3$             b)  $2(c^3 + d^3)$             c)  $4c^3d^3$             d)  $2c^3 + d^3$

14. **Combine**  $\frac{a}{2} + \frac{1}{a}$

- a)  $\frac{a^2+2}{2a}$             b)  $\frac{a^2+3}{2a}$             c)  $\frac{a+1}{2a}$             d)  $\frac{a^2+2}{a}$

15. *If  $x = 2$  and  $y = -1$ , then  $-3y - 2x =$*

- a) -7            b) -1            c) 0            d) 7

16. *If  $x + 2y = 3$  and  $y = \frac{3}{2}$  then  $x =$*

- a) 0            b) 1            c) 2            d) 6

17. Solve  $3x - 4 = 5x + 8$

- a) -6                      b)  $-1\frac{1}{2}$                       c)  $1\frac{1}{2}$                       d) 6

18. If  $x + y = 8$  and  $3y = 12$  then  $x =$

- a) -4                      b) -1                      c) 4                      d) 5

19. If  $3x = 2y$  then

- a)  $3x + 4 = 2y - 4$     b)  $3x - 2y = 0$     c)  $3x + 2y = 0$     d)  $x = y$

20.  $(2x)^3$

- a)  $2x^3$                       b)  $8x^3$                       c)  $6x^3$                       d)  $6x$

21. If  $x = y + 5$  and  $2x + y = 7$ , then  $y =$

- a) -3                      b) -1                      c) 0                      d) 3

22. If  $2x = 3 - (x - 3)$ , then  $5x =$

- a) 0                      b) 2                      c) 10                      d) 30

23. Solve the equation  $y - x = 2x + 3$  for  $x$  in terms of  $y$ .

- a)  $x = 3y - 3$                       b)  $x = \frac{y-3}{3}$                       c)  $x = \frac{y}{3} - 3$                       d)  $x = y - 3$

24. The ratio that represents the same ratio as 6:5 is

- a) 12:10                      b) 10:12                      c) 13:15                      d) 35:25

25. If  $z$  is to 6 as 10 is to 15, then  $z =$

- a) 4                      b) 6                      c) 8                      d) 9

26. If  $a$  is to  $b$  as  $c$  is to  $d$ , then

- a)  $ac = bd$                       b)  $a:c=d:b$                       c)  $b:a = c:d$                       d)  $ad = bc$

27. If there are 100 cm in a meter, how many cm are there in 1.3m?

- a) .13                      b) 13                      c) 130                      d) 1300

28. If  $\frac{4}{x} = \frac{x}{16}$ , then  $x$  could equal

- a) 32                      b) 4                      c) 8                      d) 32

29) In how many ways can 2 offices be filled if there are 3 candidates for governor and 4 candidates for mayor?

- a) 1                      b) 7                      c) 12                      d) 34

30) A box contains 3 black balls and 2 white balls. If David is blindfolded, what is the probability that David will pick a black ball?

- a)  $\frac{3}{5}$                       b)  $\frac{2}{5}$                       c)  $\frac{3}{2}$                       d)  $\frac{2}{3}$

31. A room has 5 doors. In how many ways can a person enter the room and leave by any door?

- a) 5                      b) 10                      c) 20                      d) 25

32. If  $2 - y < 2y + 2$ , then

- a)  $y < 4$                       b)  $y > 0$                       c)  $y < 0$                       d)  $y > -4$

33.  $|-3 + 5|$

- a) 2                      b) -2                      c) 8                      d) -8

34. If  $x > y$  and  $y > z$  then

- a)  $xy > yz$                       b)  $x > z$                       c)  $x + y > z$                       d)  $xyz > 0$

35. If  $1 - 2x < 0$ , then

- a)  $x < \frac{1}{2}$                       b)  $x < 1$                       c)  $x > \frac{1}{2}$                       d)  $x > 1$



36.  $8 \cdot 8 \div 2 - 3^2 =$

- a) 26                      b) 41                      c) 23                      d) 3

37. A solution for the inequality  $2x-3 < 3$  could be

- a) -3                      b) 3                      c) 5                      d) 7

38. Which equation represents the following information:

If 25% of a number  $n$  is 80, find the number.

- a)  $n = .25(80)$                       b)  $.25n = 80$                       c)  $\frac{n}{.25} = 80$                       d)  $80n = .25$

39. David jogged for 1 hour at 8 mph. How long would the same trip take if he walked at a rate of 4mph?

- a) 1 hour                      b) 2 hours                      c) 3 hours                      d) 4 hours

40. Two positive numbers are in the ratio of 5:13. If the difference between the two numbers is 48, then the larger number is

- a) 30                      b) 65                      c) 78                      d) 91

41. The cost of a high school ring is \$45 for the large size and \$35 for the regular size. The number of large size rings sold is twice the number of the regular sized rings. If the total receipts from the sale are  $k$  dollars, how many regular sized rings were sold?

- a)  $\frac{k}{125}$                       b)  $\frac{k}{115}$                       c)  $\frac{125}{k}$                       d)  $125k$

42. Find 30% of 80?

- a) 2.66                      b) 2.4                      c) 266.6                      d) 24

43. One more than 4 times 3 less than a number is 9. What is the number?

- a) 20                      b) 5                      c)  $2\frac{3}{4}$                       d)  $4\frac{1}{4}$

**44. Find the largest of 3 consecutive even integers such that the largest is three times the smallest.**

- a) 6                      b) 12                      c) 8                      d) 20

**45. A freight train travels 5 hours moving at 40 mph. How long would the trip take in a 100 mph train?**

- a) .5 hour              b) 1 hour              c) 2 hours              d) 4 hours

**46.  $17 - 6 \cdot 10 \div 2 + 12 =$**

- a) 67                      b) -1                      c) 1                      d) -67

**47. Find the area of a square that has side length 8m.**

- a)  $64m^2$               b)  $32m^2$               c)  $16m^2$               d) 64m

**48) The length of a rectangle is 6 times the width. The perimeter is 42 ft. Find the length.**

- a) 3                      b) 6                      c) 18                      d) 36

**49)  $-(-8) - 6 + 3 - 5 + 10 =$**

- a) 20                      b) 10                      c) 32                      d) 22

**50) Find the area of a right triangle that has a base of 5m and a hypotenuse of 13m.**

- a)  $12m^2$               b)  $18m^2$               c)  $65m^2$               d)  $30m^2$

Name

Quiz

Class

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- 1 (A) (B) (C) (D) 18 (A) (B) (C) (D) 35 (A) (B) (C) (D)
- 2 (A) (B) (C) (D) 19 (A) (B) (C) (D) 36 (A) (B) (C) (D)
- 3 (A) (B) (C) (D) 20 (A) (B) (C) (D) 37 (A) (B) (C) (D)
- 4 (A) (B) (C) (D) 21 (A) (B) (C) (D) 38 (A) (B) (C) (D)
- 5 (A) (B) (C) (D) 22 (A) (B) (C) (D) 39 (A) (B) (C) (D)
- 6 (A) (B) (C) (D) 23 (A) (B) (C) (D) 40 (A) (B) (C) (D)
- 7 (A) (B) (C) (D) 24 (A) (B) (C) (D) 41 (A) (B) (C) (D)
- 8 (A) (B) (C) (D) 25 (A) (B) (C) (D) 42 (A) (B) (C) (D)

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- 9 (A) (B) (C) (D) 26 (A) (B) (C) (D) 43 (A) (B) (C) (D)
- 10 (A) (B) (C) (D) 27 (A) (B) (C) (D) 44 (A) (B) (C) (D)
- 11 (A) (B) (C) (D) 28 (A) (B) (C) (D) 45 (A) (B) (C) (D)
- 12 (A) (B) (C) (D) 29 (A) (B) (C) (D) 46 (A) (B) (C) (D)
- 13 (A) (B) (C) (D) 30 (A) (B) (C) (D) 47 (A) (B) (C) (D)
- 14 (A) (B) (C) (D) 31 (A) (B) (C) (D) 48 (A) (B) (C) (D)
- 15 (A) (B) (C) (D) 32 (A) (B) (C) (D) 49 (A) (B) (C) (D)
- 16 (A) (B) (C) (D) 33 (A) (B) (C) (D) 50 (A) (B) (C) (D)
- 17 (A) (B) (C) (D) 34 (A) (B) (C) (D)

Mrs. Reiss Summer Math HW Part 2 (4917)

