

Summer Math Packet Algebra 1

ANSWER KEY

Decimals and Fractions

1. 7.9
2. 3.69
3. 12.141
4. 1.78
5. 2.15
6. 5.175
7. 4.55
8. 0.00424
9. 0.00462
10. 5.7
11. 0.6587
12. 67.3
13. $\frac{2}{3}$
14. $1\frac{1}{2}$
15. $\frac{5}{8}$
16. $\frac{1}{6}$
17. $\frac{1}{20}$
18. 2
19. $\frac{7}{12}$
20. 8
21. 24
22. $2\frac{4}{5}$
23. 12
24. $\frac{3}{8}$

Evaluating Expressions

1. 15
2. 50
3. 71
4. 26
5. 0
6. 24
7. -14
8. -8
9. 17
10. -10
11. 77
12. 20
13. 21
14. 53
15. 6
16. -12

Graphing

Plot each point on the graph below. Remember, coordinate pairs are labeled (x, y) .

1. $A(3, 4)$

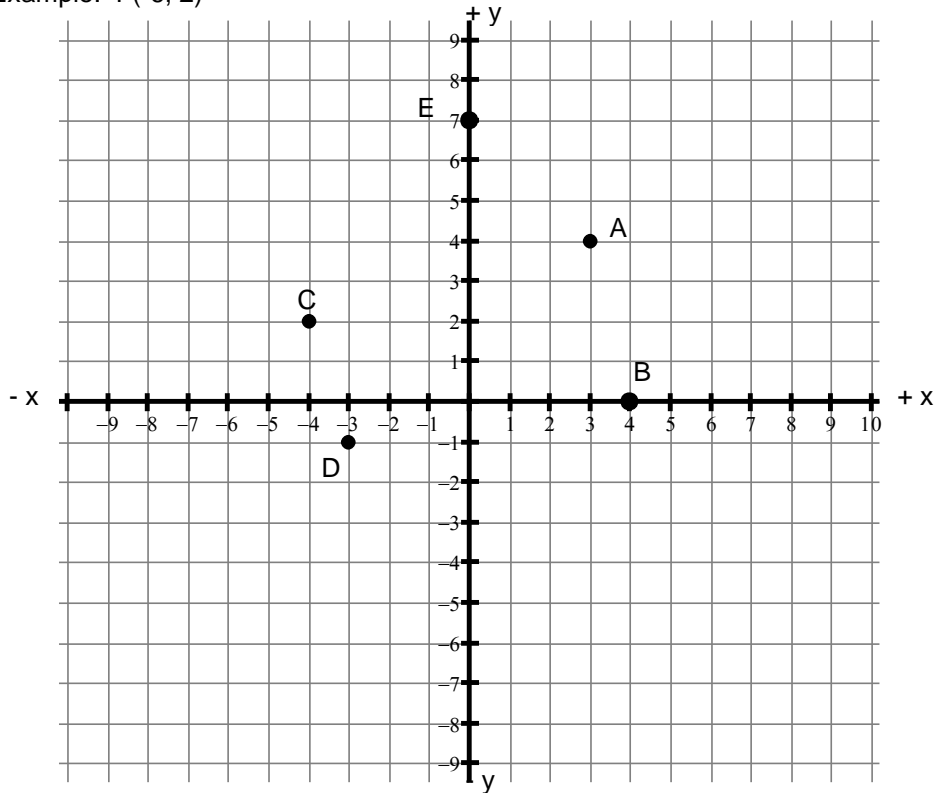
2. $B(4, 0)$

3. $C(-4, 2)$

4. $D(-3, -1)$

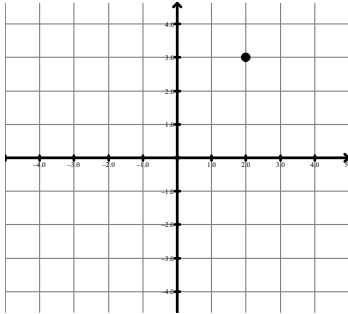
5. $E(0, 7)$

Example: $F(-6, 2)$

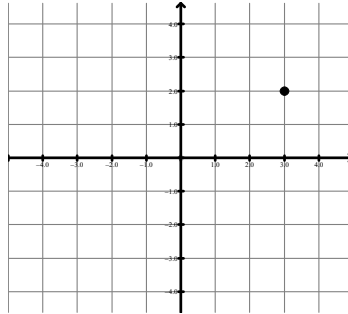


Determine the coordinates for each point below:

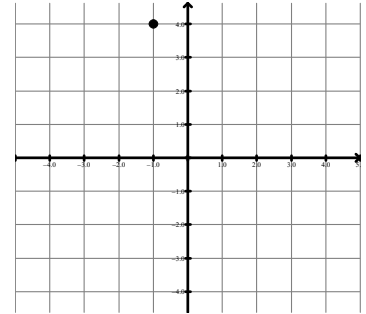
Example. (2 , 3)



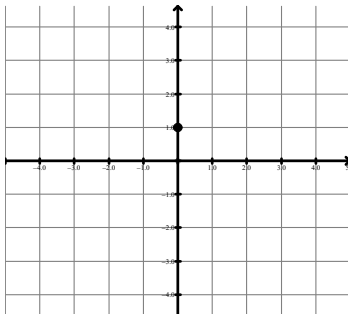
6. (3 , 2)



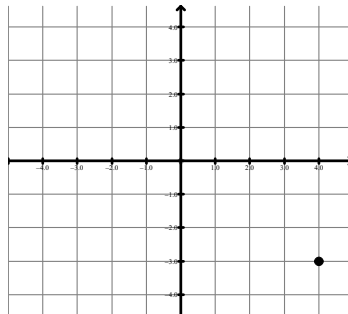
7. (-1 , 4)



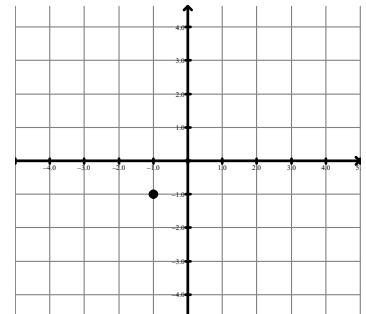
8. (0 , 1)



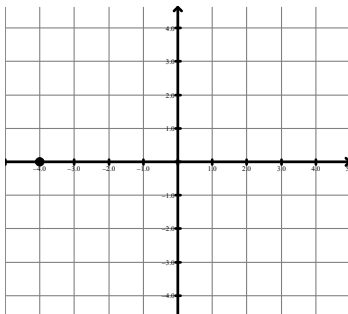
9. (4 , -3)



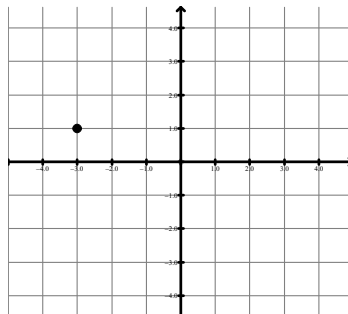
10. (-1 , -1)



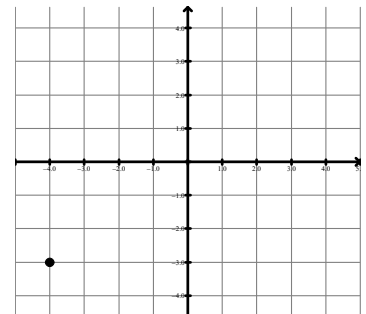
11. (-4 , 0)



12. (-3 , 1)



13. (-4 , -3)



Complete the following tables. Then graph the date on the grid provided.

Example: $y = -2x - 3$

X	Y
-3	3
-2	1
-1	-1
0	-3

Work:

$$x = -3$$

$$y = -2(-3) - 3 = 6 - 3 = 3$$

$$\text{Therefore } (x, y) = (-3, 3)$$

$$x = -2$$

$$y = -2(-2) - 3 = 4 - 3 = 1$$

$$\text{Therefore } (x, y) = (-2, 1)$$

$$x = -1$$

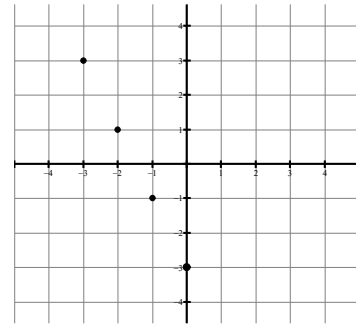
$$y = -2(-1) - 3 = 2 - 3 = -1$$

$$\text{Therefore } (x, y) = (-1, -1)$$

$$x = 0$$

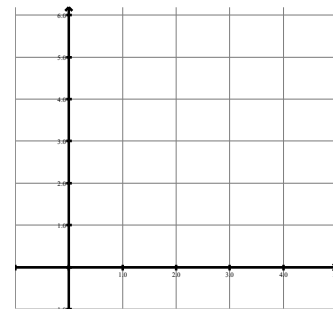
$$y = -2(0) - 3 = 0 - 3 = -3$$

$$\text{Therefore } (x, y) = (0, -3)$$



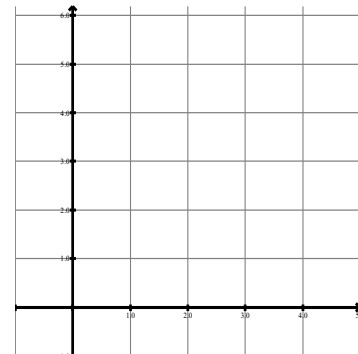
14. $y = x + 2$

X	Y
0	2
1	3
2	4
3	5



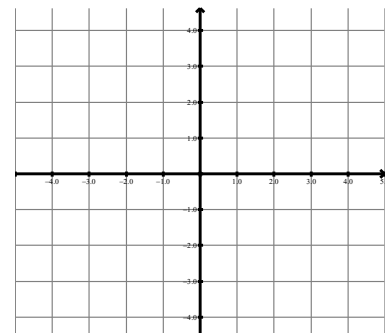
15. $y = 2x$

X	Y
0	0
1	2
2	4
3	6



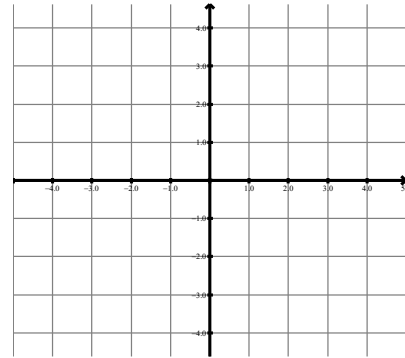
16. $y = -x$

X	Y
-3	3
-1	1
1	-1
3	-3



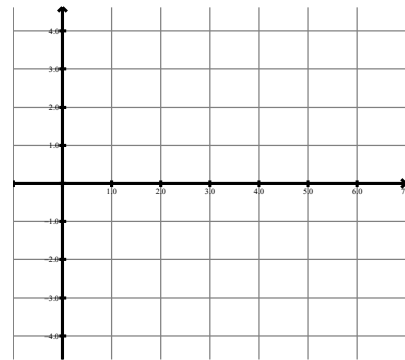
17. $y = 2x - 3$

X	Y
0	-3
1	-1
2	1
3	3



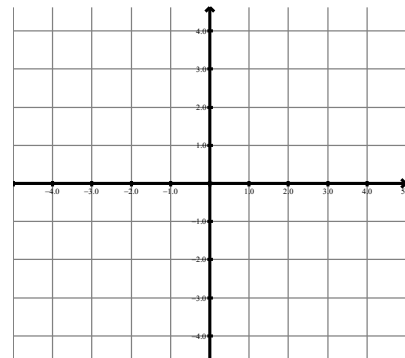
18. $y = .5x + 1$

X	Y
0	1
2	2
4	3
6	4



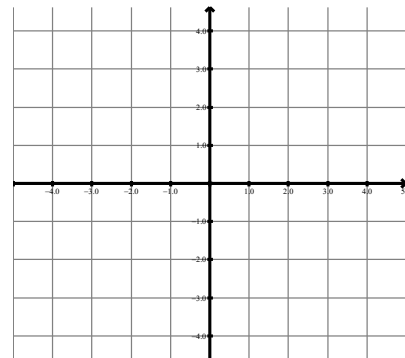
19. $y = 3/2 x - 1$

X	Y
-2	-4
0	-1
2	2



20. $y = -2/3 x + 1$

X	Y
-3	3
0	1
3	-1



Order of Operations

1. 4

2. 21

3. -8

4. -8

5. 6

6. 34

7. 25

8. 61

9. -36

10. 20

11. -326

12. 8

13. 30

14. -2

15. 6

16. 1

17. 9

18. 31

19. -10

20. .5 or $\frac{1}{2}$

21. 13

22. -18

23. -7

24. 6

Adding & Subtracting Signed Numbers

1. 5
2. -1
3. -20
4. -39
5. -6
6. 9
7. 26
8. -3
9. 1
10. -4
11. -15
12. 13

Multiplying & Dividing Signed Numbers

1. 15
2. -3
3. 8
4. 3
5. 5
6. -2
7. 7
8. -12
9. -2
10. -14
11. 20
12. -10

Solving Equations

1. $x = 2$
2. $w = -3$
3. $x = -2$
4. $p = 15$
5. $k = 15$
6. $x = 14$
7. $h = 3$
8. $m = 17$
9. $d = 56$
10. $j = 16$
11. $x = 8$
12. $n = 3$
13. $j = 4$
14. $x = 15$
15. $x = 6$
16. $x = 2$
17. $f = -1$
18. $a = 2$
19. $b = 42$
20. $x = -9$
21. Yes $7 = 7$
22. No $4 \neq 8$
23. No $-3 \neq 13$
24. Yes $9 = 9$

Word Problems

1. b
2. d
3. e
4. a
5. c

- | | | |
|--------------------------|------------|---|
| 1. $x - 7 = 3$ | $x = 10$ | The number is 10 |
| 2. $x + (x + 20) = 250$ | $x = 115$ | Anna weighs 115 and Janet weighs 135 |
| 3. $3x = 2$ | $x = 2/3$ | The number is $2/3$ |
| 4. $x/4 = 12$ | $x = 48$ | The number is 48 |
| 5. $x + (x + 3) = 37$ | $x = 17$ | Sarah drove 20 hours and Michael drove 17 hours |
| 6. $(125 + x) + x = 515$ | $x = 195$ | Rosa Parks has 320 8 th graders and Farquhar has 195 8 th graders |
| 7. $x + .45 = 2.60$ | $x = 2.15$ | The current cost of the school lunch is \$2.15 |
| 8. $2x + x = 105$ | $x = 35$ | Jim spent \$35 and Matt spent \$70 at the mall |
| 9. $(x + 4) + x = 20$ | $x = 8$ | Laura studied 8 hours and Roberto studied 12 hours for the exam |
| 10. $3/4x = 1230$ | $x = 1640$ | There are 1,640 students in the student body |

Rounding Numbers

1. 18.6
2. 25.1
3. 3.9
4. 37.0
5. 15.9
6. 0.3
7. 100.9
8. 19.7
9. 17.1
10. 1.0