

Algebra I Summer Assignment

Date _____ Period _____

This assignment is for students who are taking Algebra 1 in the 2018-2019 school year.

1) Did you read the instructions?

2) What math class are you taking in the 2018-2019 school year?

Evaluate each expression. Do not use a calculator.

3) $(5 - 2) \times 6$

4) $6 - 5 + 1$

5) $(8 \times 2) \div 4$

6) $6 \times 2 + 6$

7) $10 \div (3 + 2)$

8) $(-2)(7 - 6) + 5$

9) $\frac{16 \times 2}{6 - 10}$

10) $(-3) + (-6) + 9 - 4$

11) $(-2) - ((-5) - 1 - 10)$

12) $(-8) \cdot (-1) \cdot 6 - (-4)$

Solve each equation. Do not use a calculator.

13) $1 - 5m = 1 + 8m - 2m$

14) $3k - 7k = -3k + 4$

15) $-7x + 6x = -6 - 2x$

16) $-8(5x - 7) = -224$

$$17) 434 = -7(8x - 7) - 7$$

$$18) -90 = -3(-3n + 6)$$

$$19) -22.52 = -3.28 + 1.5p + 2.2p$$

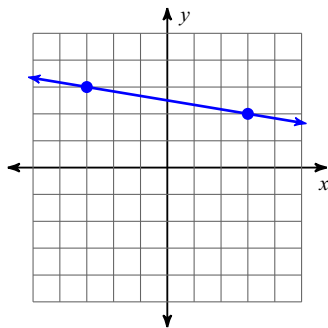
$$20) -7.9 = n - 5.2 + 2$$

$$21) 18.436 = -7.5b + 3.2 - 4.22b$$

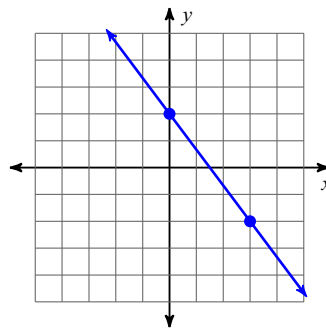
$$22) 23 - 5n = -5n - (-3 + 4n)$$

Find the slope of each line.

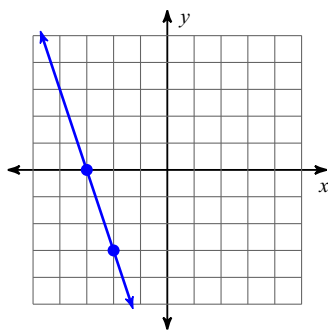
23)



24)



25)



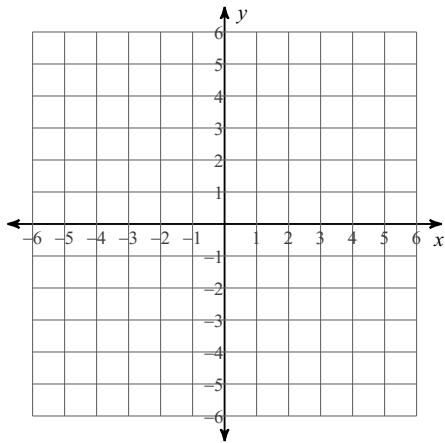
Find the slope of the line through each pair of points. Do not use a calculator.

26) $(-15, 0), (1, 11)$

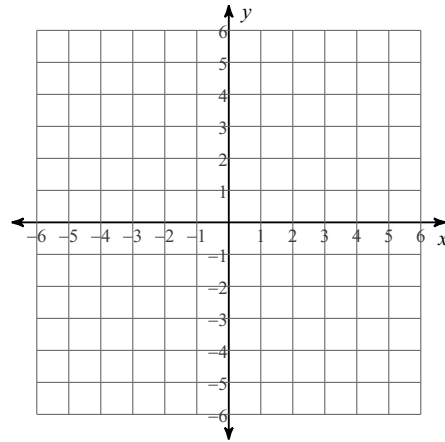
27) $(-19, 4), (-17, -13)$

Sketch the graph of each line.

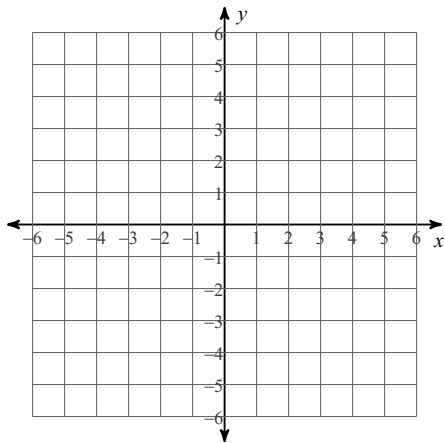
28) $y = -\frac{1}{4}x - 1$



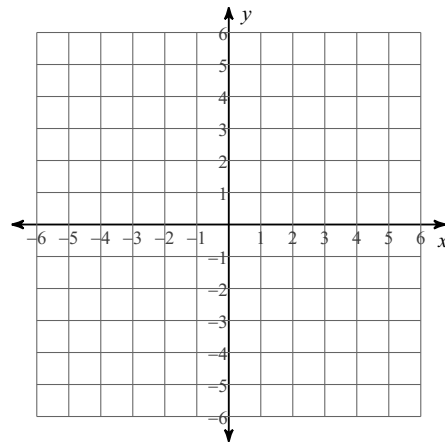
29) $x = -2$



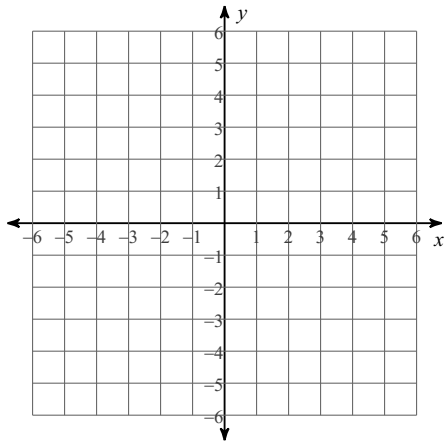
30) $y = -8x - 4$



31) $y = x$

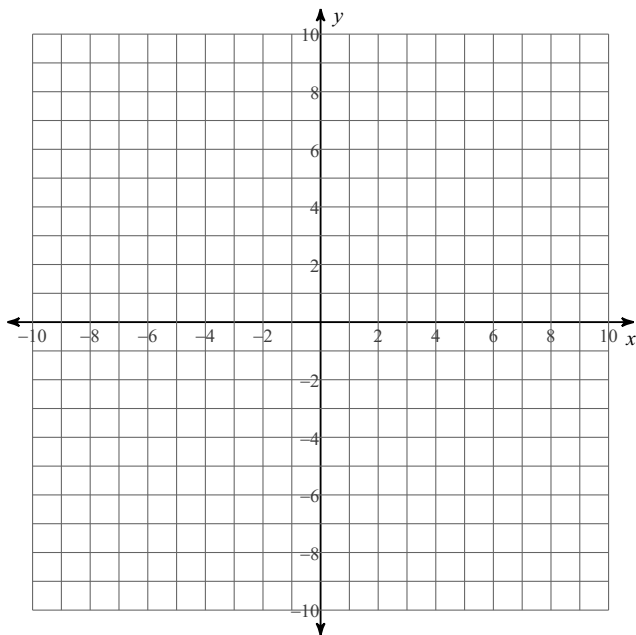


32) $y = -x$



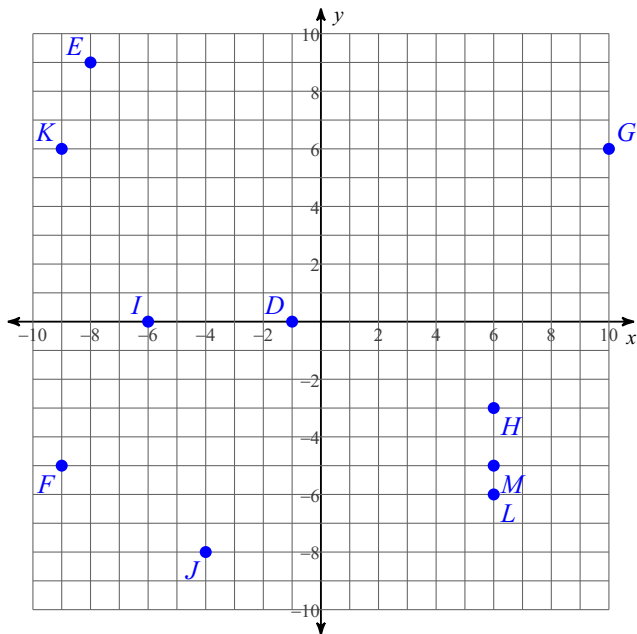
Plot each point.

- 33) $J(3, 4)$ $I(-8, -5)$ $H(-2, -9)$
 $G(0, -7)$ $F(-8, 3)$ $E(-3, -7)$
 $D(8, 7)$ $C(-5, -3)$ $B(7, -4)$
 $A(-7, -4)$



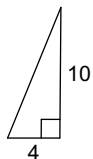
State the coordinates of each point.

34)

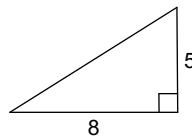


Find each missing length to the nearest tenth. Do not use a calculator.

35)



36)



Simplify. Your answer should contain only positive exponents.

37) $6a^2 \cdot 3a$

38) $4x^3 \cdot 2x^3$

39) $\frac{5n^2}{n^3}$

40) $\frac{6n^2}{4n}$

41) $(3n^2)^2$

Solve each problem.

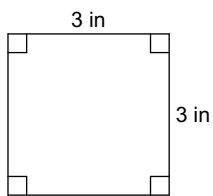
42) 74% of 59 is what?

43) 9 is what percent of 66?

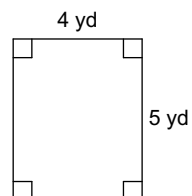
44) 60% of what is 60?

Find the area of each. Round your answer to the nearest tenth.

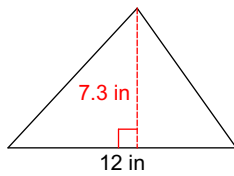
45)



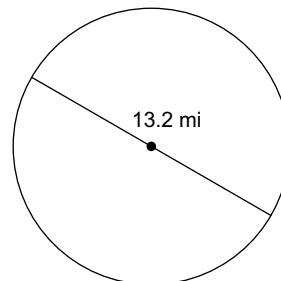
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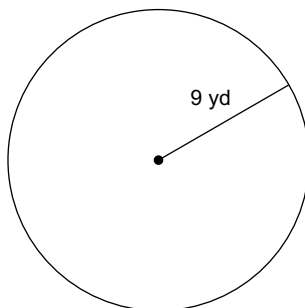
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48)

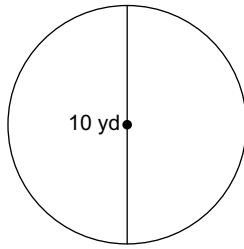


49)



Find the circumference of each circle. Round your answer to the nearest tenth.

50)



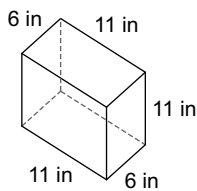
Solve each system by substitution.

51) $-5x - 3y = 12$
 $y = 1$

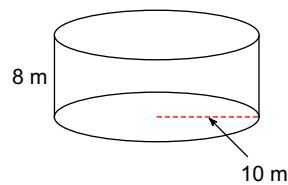
52) $y = -1$
 $6x + 4y = -22$

Find the surface area of each figure. Round to the nearest tenth.

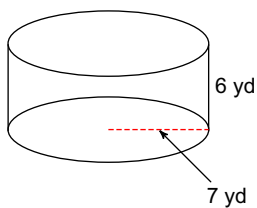
53)



54)



55)



56) There are 12 animals in the barn. Some are geese and some are pigs. There are 34 legs in all. How many of each animal are there?

57) A farmhouse shelters 11 animals. Some are sheep and some are ducks. Altogether there are 28 legs. How many of each animal are there?

Write each number in scientific notation.

58) 200

59) 0.0003