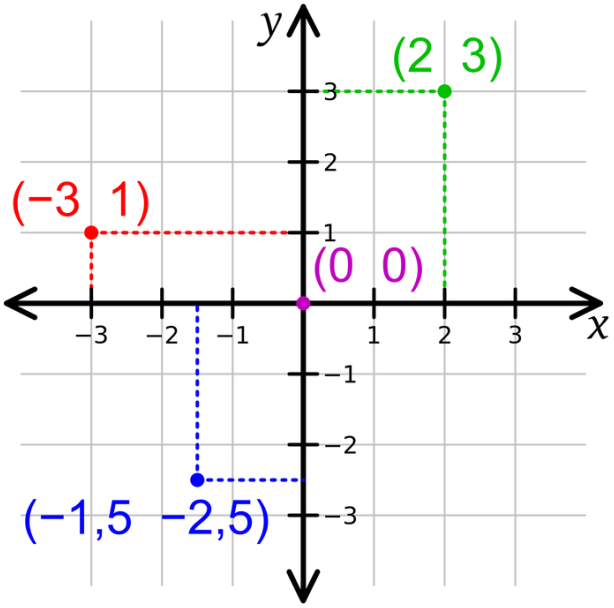
ESOL Geometry going to Algebra 2

Summer Packet 2021



This packet is due when you come back to school in september. Please give it to your algebra 2 teacher.

Have a great summer!
Ms. Lovelace and Ms. Austin

Resources in Spanish

Youtube videos

Busque videos de Daniel Carreon

- Regla de los signos
- Terminos semejantes
- Ecuaciones de primer grado
- Ecuaciones de primer grado con paréntesis
- Plano cartesiano
- Ubicar un punto en el PLANO CARTESIANO
- MEDIA, MODA Y MEDIANA

Watch this videos, if you want to get ahead and learn some of the material we will learn in the first quarter.

- Diagrams (caja y bigotes, histograma, y diagrama de puntos)
- Como hacer una grafica de barras
- Graficar funciones lineales super facil

Find the sum.

1) $19 + (-13) =$ _____

2) $(-4) + 11 =$ _____

3) $(-2) + (-20) =$ _____

4) $18 + 1 =$ _____

5) $15 + 3 =$ _____

6) $(-9) + (-14) =$ _____

7) $(-6) + 16 =$ _____

8) $12 + (-17) =$ _____

Find the difference.

1) $(-13) - (-5) =$ _____

2) $(-9) - 16 =$ _____

3) $7 - (-11) =$ _____

4) $20 - 3 =$ _____

5) $(-18) - 14 =$ _____

6) $(-10) - (-10) =$ _____

Multiply and divide integers

Simplify.

1) $(-120) \div (-8) =$ _____

2) $3 \times 15 =$ _____

3) $(-3) \times 4 =$ _____

4) $182 \div (-13) =$ _____

5) $36 \div (-12) =$ _____

6) $(-7) \times (-8) =$ _____

7) $6 \times 10 =$ _____

8) $(-98) \div 14 =$ _____

9) $(-72) \div 9 =$ _____

10) $10 \times (-10) =$ _____

11) $14 \times (-6) =$ _____

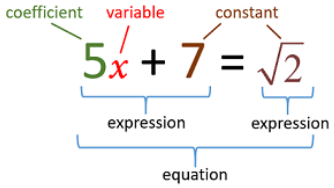
12) $(-126) \div (-9) =$ _____

13) $20 \div 5 =$ _____

14) $(-2) \times 11 =$ _____

Algebra Vocabulary

Word	Definition	Examples
Expression	Number sentence **without** an equal sign	5x + 9 + 3x − 2
Equation	Number sentence that **equates** two expressions	5x - 8 = 17
Variable	A **letter** that represents one or more numbers	x, y, a, z
Coefficient	**Number** that is **multiplied** to a variable.	Coefficients 2x + 3y - 7
Terms	Expressions that are separated by a + or − sign.	5x - 8 = 17 terms
Like terms	**Terms** that have the **same** variable and exponent	5x + 9 + 3x − 2 = 8x + 7
Constant	A **regular number**, No variable (letter)	4, 19, 2, 0, 1

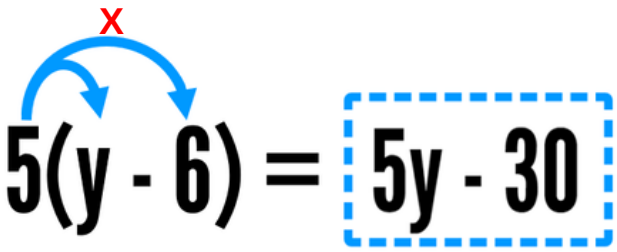


Terms: $5x$, 7, $\sqrt{2}$

Word Bank

Variable
Expression
Terms
Like Terms
Constant
Coefficient

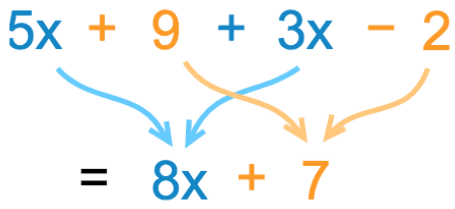
Use the distributive property of multiplication



Use the distributive property to simplify the expressions.

1 a. $-9(-8z + n)$	**1 b.** $8(-3 + 5b)$
2 a. $2(-7y - d)$	**2 b.** $12(-7p + 6)$
3 a. $-5(-2p + 7)$	**3 b.** $-4(4c + b)$
4 a. $3(-9 + 10q)$	**4 b.** $-6(-4x - s)$
5 a. $-9(-7 + 8z)$	**5 b.** $-8(-1 + 9b)$
6 a. $-5(-y - 6)$	**6 b.** $-7(-8a - w)$
7 a. $-4(-3v + 11)$	**7 b.** $4(11v + 3)$

Combine (put together) **Like Terms**



Simplify each expression.

1) $3 + 2s - 4 + 3s$

2) $9c + 3 + 13c - 4c + 4 - 24c$

3) $10m + 2 + 7m - 3 + 5m$

4) $7z + 8 + 5z - 5z - 9$

5) $-2y + 7 - 8y + 10 - 11y$

6) $c + 6 + 4c - 3 + 4$

7) $12s - 8 + 20 - 9 - 3s$

8) $4n + 6 + 11n + 3 + 7n - 7$

9) $-32 - 8a + 12 - 2a - 4$

10) $-3x + 9 + 3x - 11x$

Now try these: **Solve for X**

1) $-7x - 2 = 47$

2) $2x + 6 = 12$

3) $\frac{x}{5} + 2 = 8$

4) $6 - 4x = -42$

5) $8 - 4x = -40$

6) $\frac{z-2}{4} = 9$

7) $-7x - 7 = 14$

8) $3 - 7x = 24$

9) $\frac{x}{8} = \frac{6}{24}$

10) $\frac{5}{7} = \frac{10}{x+2}$

A) Plot each point on the coordinate grid.

1) G(4, -5)

2) L(0, -3)

3) X(-2, 5)

4) R(3, -4)

5) P(1, 2)

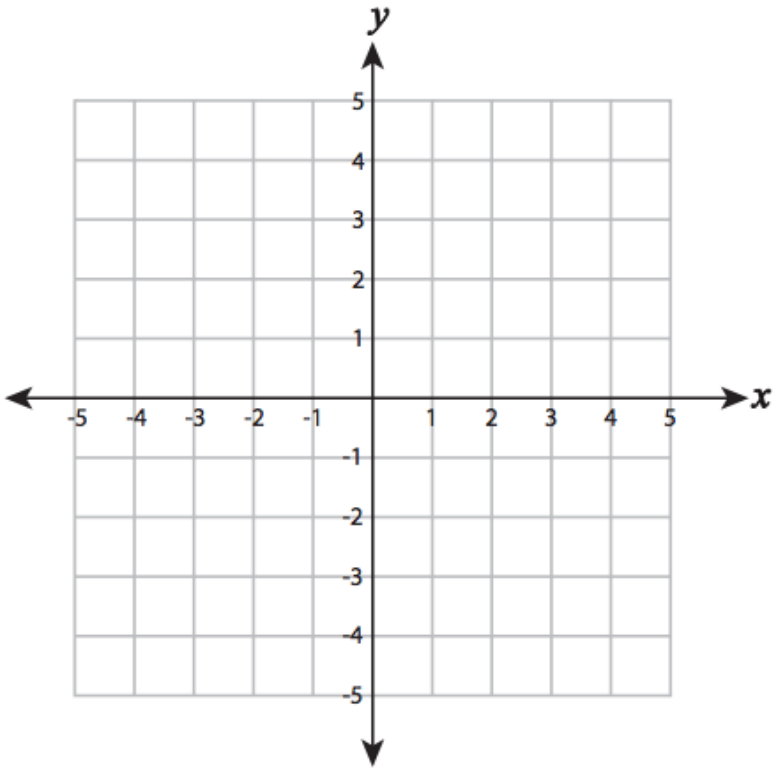
6) D(-2, -3)

7) E(-4, 3)

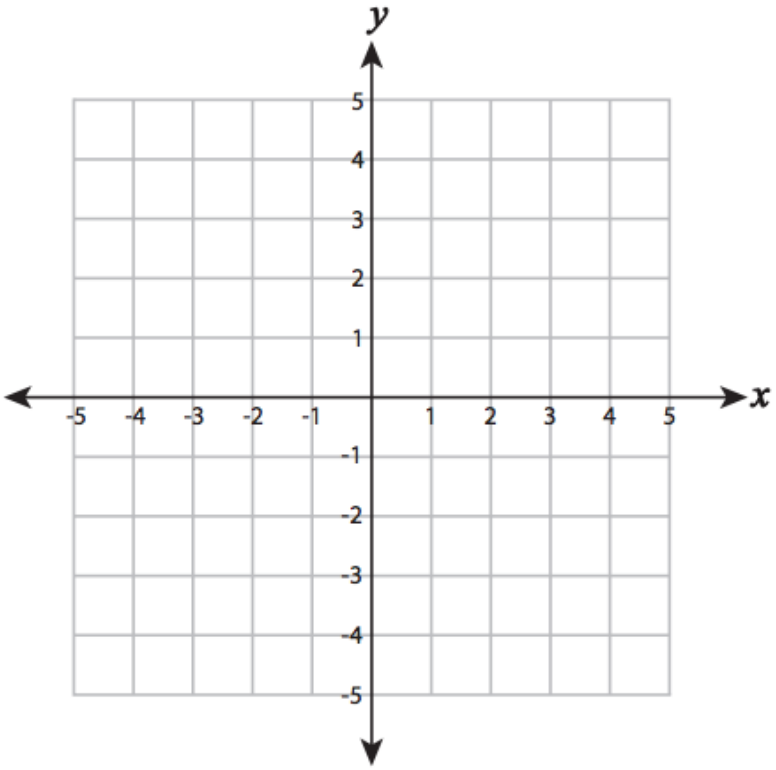
8) M(4, 2)

9) H(2, 4)

10) I(-4, -1)



B) Draw each shape on the coordinate grid.



11) Draw ○ at (-1, 3)

12) Draw ☆ at (-3, -2)

13) Draw ▭ at (0, 1)

14) Draw △ at (3, 2)

15) Draw □ at (2, -2)

Ordered Pairs & Plotting Points

All quadrants: S4

A) Write the point that is located at each ordered pair.

1) (-3, -4) _____

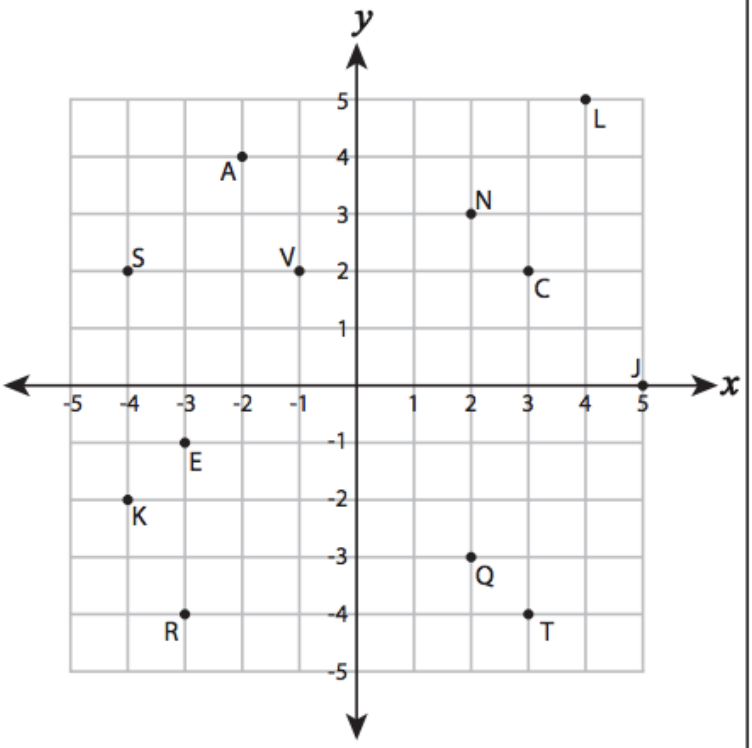
2) (3, 2) _____

3) (-4, -2) _____

4) (-2, 4) _____

5) (3, -4) _____

6) (2, 3) _____



B) Write the ordered pair for each point.

7) L(___ , ___)

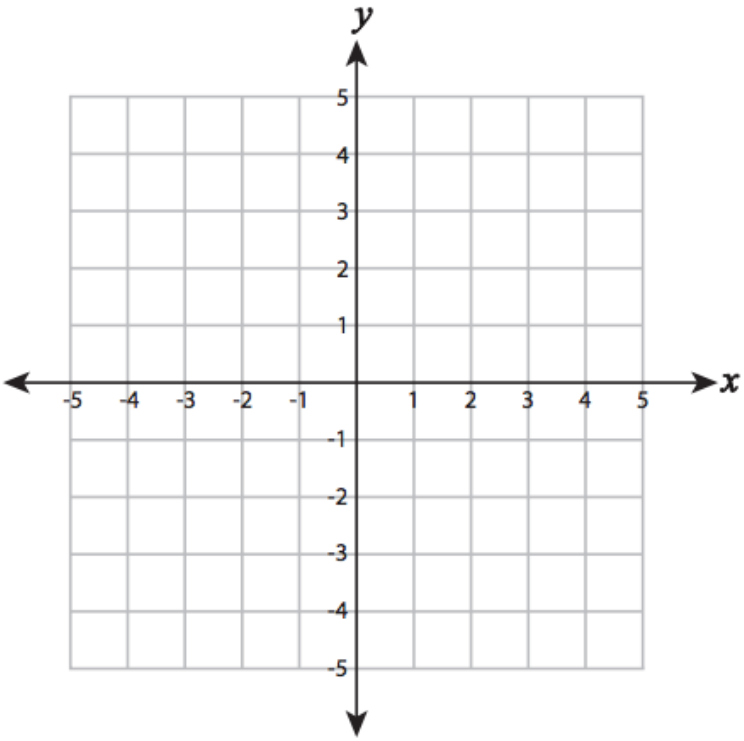
8) V(___ , ___)

9) S(___ , ___)

10) Q(___ , ___)

11) E(___ , ___)

12) J (___ , ___)



C) Plot each point on the coordinate grid.

13) M(1, -4)

14) Y(-3, 2)

15) Z(2, 3)

16) H(4, 5)

17) D(-5, -1)

18) P(4, -2)

D) Draw each shape on the coordinate grid.

19) Draw △ at (-4, 4)

20) Draw ☆ at (3, 2)

21) Draw ○ at (-3, -5)

Write each equation in slope-intercept form.

$y = mx + b$

1) $4x + 2y = 16$

2) $-18x + y = 6$

3) $-2x - 8y = -32$

4) $\frac{5(x - y)}{3} = 10$

5) $x - 3y = 6$

6) $3y - 9 = -5x$

7) $-x = 12 - 4y$

8) $3x - 4y = 32$

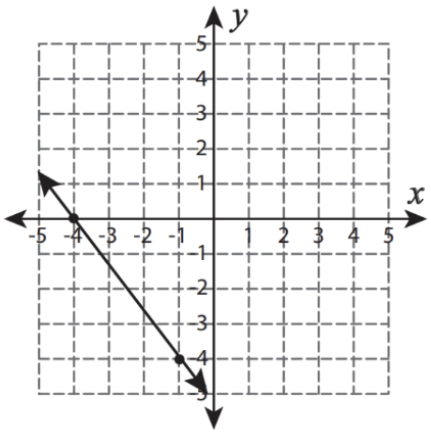
9) $5y = -10x + 5$

10) $x - 7y = -28$

Slope-Intercept Form: $y = mx + b$

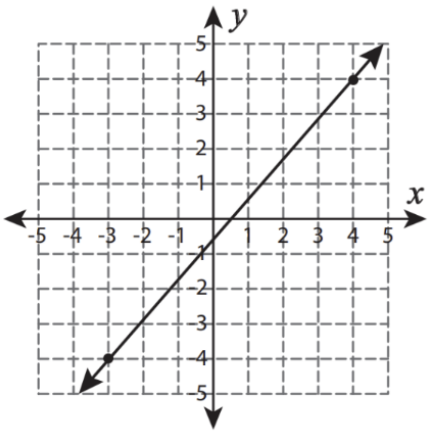
Calculate the rise and run to find the slope of each line.

1)



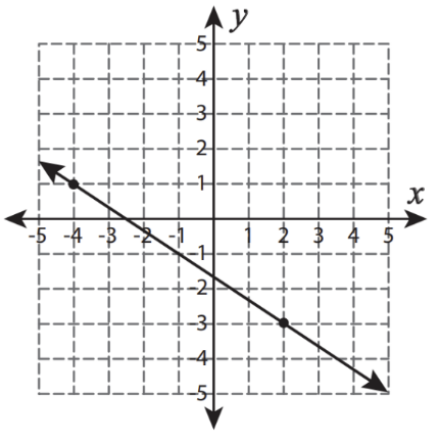
Slope = _____

2)



Slope = _____

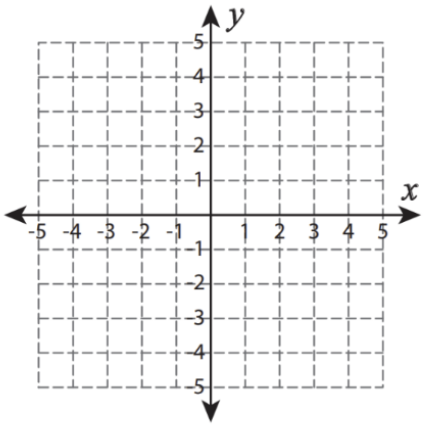
3)



Slope = _____

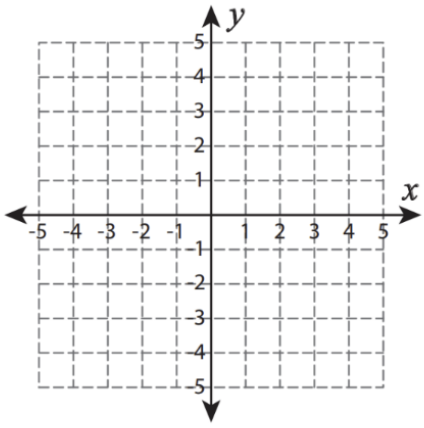
Plot the points, draw the line and find the slope of the line.

4) (3, 1) and (3, –5)



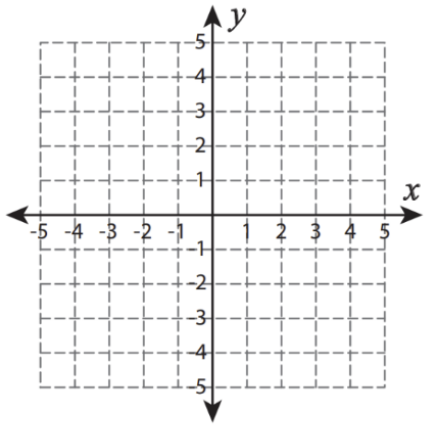
_____

5) (–4, 1) and (4, –5)



_____

6) (2, 3) and (–1, –4)



_____

Thank you for working on your summer packet!!!!

You will do great in algebra because you are determined!