

Algebra 1B
Summer Packet – No Calculators

Name Per. Date

This review includes topics that you have learned previously. As you are working on this packet, there are resources available to help you.

1) Evaluate each of the following expressions.

a.) $0.25 + 8.1$
 8.35

b.) $16 - 21$
 -5

c.) $16 \div (-4)$
 -4

d.) $4 \div 16$
 0.25

e.) $(-4)(-7)$
 28

f.) $-15 - 9$
 -24

g.) $14 - (-5)$
 19

h.) $(-2)^2$
 4

i.) $\frac{1}{3} + 2\frac{1}{2}$
 $\frac{17}{6} = 2\frac{5}{6}$

j.) $\frac{7}{3} - \frac{14}{15}$
 $\frac{7}{5} = 1\frac{2}{5}$

k.) $\frac{4}{9} \cdot \frac{-5}{2}$
 $\frac{-10}{9} = -1\frac{1}{9}$

l.) $\frac{5}{7} \div (-2\frac{2}{7})$
 $\frac{-5}{16}$

2) Simplify each of the following expressions. You must show all work.

a.) $12 - 6 \div 3 \cdot 2$
 8

b.) $7 - (6 - 5)^2 + 12$
 18

c.) $\frac{7 + 3(-4)}{5 - 3^2}$
 $\frac{5}{4} = 1\frac{1}{4} = 1.25$

3) Evaluate each of the following expressions for the given variable.

a.) $3 - w + \frac{1}{5}n$, when $w = -7$ and $n = \frac{1}{2}$
 $10\frac{1}{10}$

b.) $2b - (a + c)$ when $a = 4$, $b = 10$ and $c = -8$
 24

4) Simplify the expressions.

a.) $3(x + 2)$
 $3x + 6$

b.) $-(4y - 6)$
 $-4y + 6$

c.) $\frac{5}{2}(3 - 2x) + 4x^2$
 $7.5 - 5x + 4x^2$

d.) $5(2 + 2m) + 2m$

e.) $4(3 - 6x) - 7(-8x + 6)$

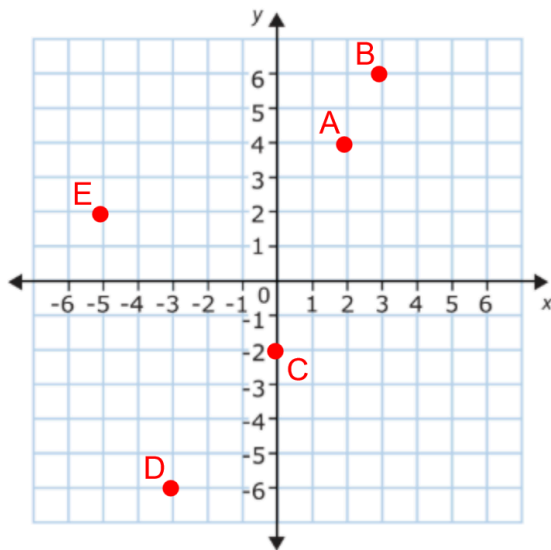
f.) $-3v - 7(2v - 7)$

$12m+10$

$32x-30$

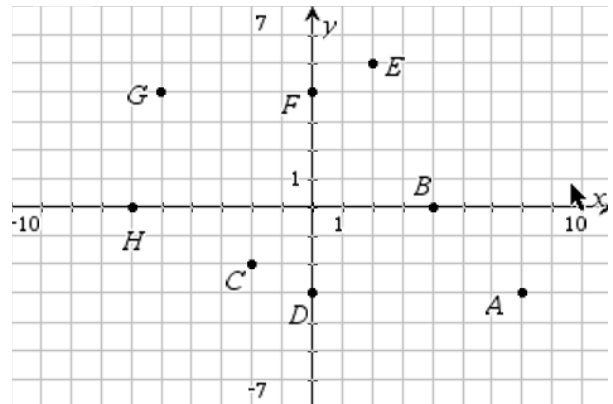
$-17v+49$

5) Graph and Label the points.



	x	y
A	2	4
B	3	6
C	0	-2
D	-3	-6
E	-5	2

6) List the ordered pair for each point:



$A = (7, -3)$

$B = (4, 0)$

$C = (-2, -2)$

$D = (0, -3)$

$E = (2, 5)$

$F = (0, 4)$

$G = (-5, 4)$

$H = (-6, 0)$

7) Solve and check the following equations. Show all work!

a) $2x + 4 = 5$

$x=0.5$

b) $\frac{x}{6} + 3 = -2$

$x=-30$

c) $4 - 3x = 19$

$x=-5$

d) $\frac{x}{2} = \frac{2}{3}$

$x = \frac{4}{3}$

e) $\frac{5}{x} = 3$

$x = \frac{5}{3}$

f) $-10 = 6x + 4x$

$x = -1$

g) $3x + 8 = 7x - 4$
 $2x + 3(x - 1) = 5(x + 3)$

$x = 3$

h) $2x + 4x - 1 = 9x + 2$

$x = -1$

i)

No solutions

8) Determine the slope of the line.

a) $(4, 7) \text{ \& } (-3, 6)$

$$\frac{-1}{-7} = \frac{1}{7}$$

b) $(-2, 4) \text{ \& } (-2, 6)$

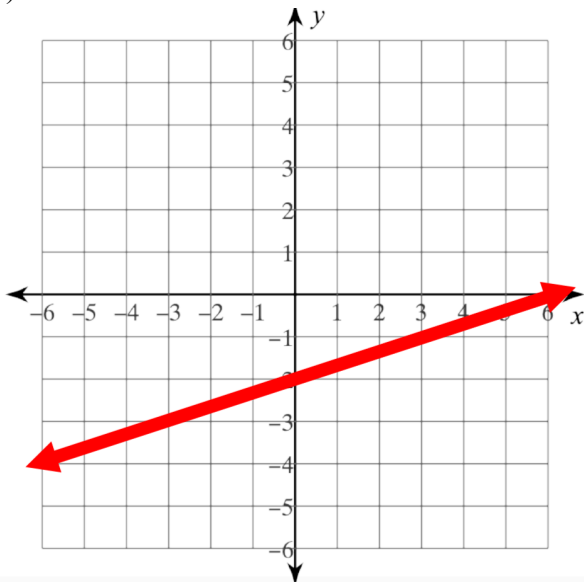
undefined

c) $(5, -4) \text{ \& } (-9, -1)$

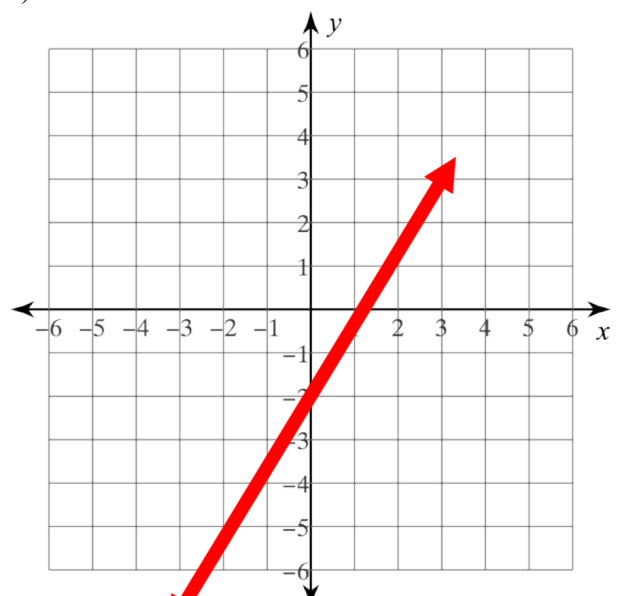
$$\frac{3}{-14} = \frac{-3}{14}$$

9) Graph each of the functions.

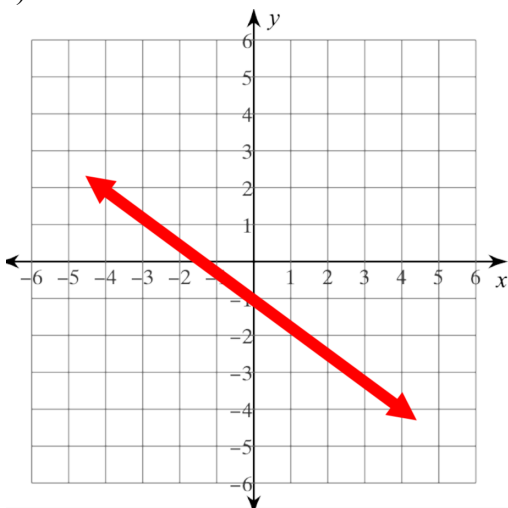
a)



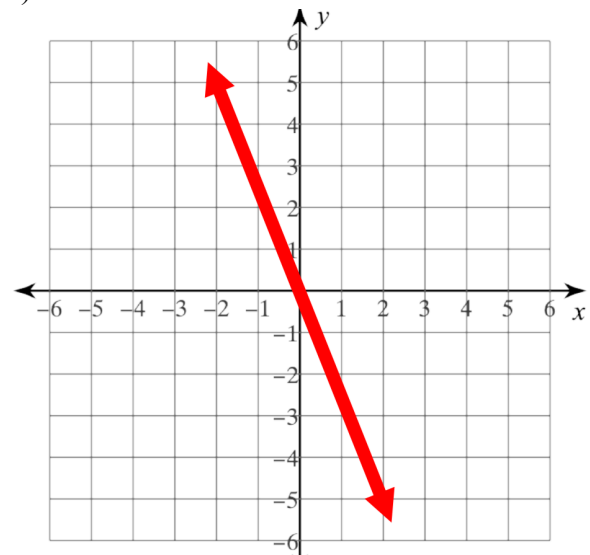
b)



c)



d)



10) Write the equation of the line given the following information:

a) $(-4, -1)$ & $slope = \frac{-3}{8}$

$$y = \frac{-3}{8}x - \frac{5}{2}$$

b) $(5, 0)$ & $slope = \frac{4}{7}$

$$y = \frac{4}{7}x - \frac{20}{7}$$

c) $(-2, 3)$ & $(-3, 4)$

$$y = -1x + 1$$

d) $(-3, 0)$ & $(2, 3)$

$$y = \frac{3}{5}x + \frac{9}{5}$$

11) Write the equation of the line that is PARALLEL to $y = \frac{1}{2}x + 5$ and passes through the point $(4, -5)$.

$$y = \frac{1}{2}x - 7$$

12) Write the equation of the line that is PERPENDICULAR to $y = \frac{1}{2}x + 5$ and passes through the point $(4, -5)$.

$$y = -2x + 3$$