

Student Name _____

Parent Sign _____

Alg.
Ch. 6
Review

1) (any 2 pts.)
(4, -3)
(0, -2)

(A)

2) (4, 6)
(9, 3)

$\frac{6-3}{4-9} = \frac{3}{-5}$

(D)

3) horizontal = 0
vertical = undef.

(B)

slope = $\frac{\text{change in } y}{\text{change in } x} = \frac{-3 - (-2)}{4 - 0} = \frac{-1}{4}$

4) $y = \frac{4}{3}x - 3$
 $y = mx + b$

$m = \frac{4}{3}, b = -3$

(D)

5) $8x + 4y = 88$
standard form, so,

$m = -\frac{A}{B} = -\frac{8}{4} = -2$

$b = \frac{C}{B} = \frac{88}{4} = 22$

(D)

6) $m = -4, b = 8$
 $y = mx + b$

$y = -4x + 8$

(D)

7) (3, 1)
(-3, -3)

$m = \frac{1 - (-3)}{3 - (-3)} = \frac{4}{6} = \frac{2}{3}$

$y = mx + b$ (look at graph)
y-int = -1

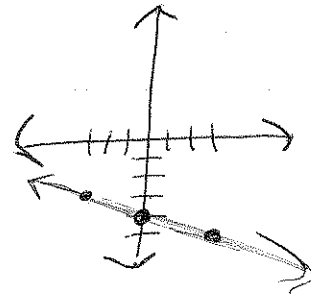
$y = \frac{2}{3}x - 1$

(D)

8) $y = -\frac{1}{3}x - 4$
 $m = -\frac{1}{3}$ (rise/run) y-int

or $m = -\frac{1}{3}$ (rise/run)

(D)



9) $-3x + 9y = 18$

x-int (let y=0) y-int (let x=0)

$-3x + 9(0) = 18$ $-3(0) + 9y = 18$

$\frac{-3x}{-3} = \frac{18}{-3}$

$x = -6$

$\frac{9y}{9} = \frac{18}{9}$

$y = 2$

(C)

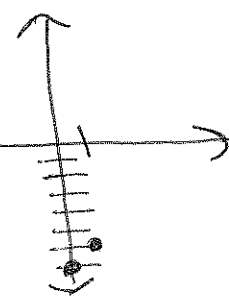
10) $-7x + 7y = -49$

standard form, so,

$m = -\frac{A}{B} = -\frac{-7}{7} = \frac{1}{1}$ (rise/run)

y-int = $\frac{C}{B} = \frac{-49}{7} = -7$

(A)



11) $y = \frac{5}{6}x + 11$

$6(y) = 6(\frac{5}{6}x) + 6(11)$

$6y = 5x + 66$

$-5x + 6y = 66$

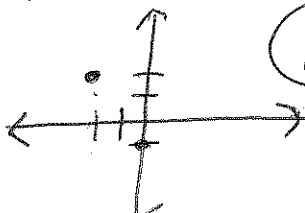
(D)

12) $y - 2 = -\frac{3}{2}(x + 2)$

$y - y_1 = m(x - x_1)$

so, $m = -\frac{3}{2} = -\frac{3}{2}$ (rise/run)
point is (-2, 2)

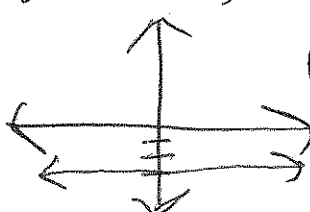
(B)



13) $y = -3$

(y always -3, no matter what x is) = horizontal

(C)



$$14) (10, -9); m = -2$$

$$y - y_1 = m(x - x_1)$$

$$y - (-9) = -2(x - 10)$$

$$y + 9 = -2(x - 10)$$

(D)

$$15) (2, -1) m = \frac{4 - (-1)}{8 - 2} = \frac{5}{6} \rightarrow y + 1 = \frac{5}{6}x - \frac{10}{6}$$

$$(8, 4) y - y_1 = m(x - x_1)$$

$$y - 4 = \frac{5}{6}(x - 8)$$

$$y + 1 = \frac{5}{6}(x - 2)$$

(A)

$$6(y) + 6(1) = 6\left(\frac{5}{6}x\right) - 6\left(\frac{10}{6}\right)$$

$$6y + 6 = 5x - 10$$

$$-5x + 6y + 6 = -10$$

$$\frac{-5x + 6y + 6}{-6} = \frac{-10}{-6}$$

$$-5x + 6y = -10$$

x	y
10	-9
4	-5
4	-1
3	-17

$$m = \frac{-5}{4}$$

$$17) y = \frac{1}{6}x + 8$$

$$m = \frac{1}{6}$$

$$y\text{-int} = 8$$

$$-2x + 12y = -11$$

$$m = -\frac{A}{B} = -\frac{2}{12} = \frac{1}{6}$$

$$y\text{-int} = \frac{C}{B} = \frac{-11}{12}$$

(C)

$$y - (-2) = -\frac{5}{4}(x - (-9))$$

$$y + 2 = -\frac{5}{4}(x + 9)$$

(D)

$$19) y = -\frac{1}{2}x - 11$$

$$m = -\frac{1}{2}$$

$$16x - 8y = -8$$

$$m = -\frac{A}{B} = -\frac{16}{-8} = 2$$

(B)

$$18) y = \frac{3}{4}x - 9$$

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

$$20) 4x - 12y = 2$$

$$m = -\frac{A}{B} = -\frac{4}{-12} = \frac{1}{3}$$

$$21) (C)$$

$$22) y = |x| - 5$$

down 5

(C)

parallel, use same slope

$$y - y_1 = m(x - x_1)$$

$$y - (-18) = \frac{3}{4}(x - 8)$$

$$y + 18 = \frac{3}{4}(x + 8)$$

$$y + 18 = \frac{3}{4}x + 6$$

$$\frac{y + 18}{-18} = \frac{\frac{3}{4}x + 6}{-18}$$

$$y = \frac{3}{4}x - 12$$

(C)

perp., use opposite reciprocal so $m = -3$

$$y - y_1 = m(x - x_1)$$

$$y - (-1) = -3(x - 10)$$

$$y + 1 = -3(x - 10)$$

$$y + 1 = -3x + 30$$

$$y = -3x + 29$$

(C)

$$23) y = |x| + 2$$

(D)

$$24) y = |x - 16.5|$$

(A)

$$25) y = |x - 3| - 4$$

right 3 down 4

(C)