Name Key Per A B C D E F Date _____

#1-4 Find the slope between the two given points.

1) (-4, 1) and (2, -5) $m=\frac{-5-1}{2-(-4)}=\frac{-6}{2+4}=\frac{-6}{6}=-1$ Slope (m) = -1	2) (2, -3) and (-3, 7) $m=\frac{7-(-3)}{-3-2}=\frac{7+3}{-5}=\frac{10}{-5}=-2$ Slope (m) = -2
3) (-8, 5) and (2, 5) $m=\frac{5-5}{2-(-8)}=\frac{0}{2+8}=0$ Slope (m) = 0	4) (-2, 7) and (-2, -4) $m=\frac{-4-7}{-2-(-2)}=\frac{-11}{-2+2}=\frac{-11}{0}$ Slope (m) = undefined

#5-10 Write the equation of the line in slope-interception form that passes through the two given points.

5) (1, 5) and (2, 0) $m=\frac{0-5}{2-1}=\frac{-5}{1}=-5$ Slope (m) = -5 $y=-5x+b$ (1,5) $5=-5(1)+b$ $5=-5+b \rightarrow 10=b$ (+5 +5) y – intercept (b) = (0,10) Equation: $y=-5x+10$	6) (-2, 2) and (-5, -4) $m=\frac{-4-2}{-5-(-2)}=\frac{-6}{-5+2}=\frac{-6}{-3}=2$ Slope (m) = 2 $y=2x+b$ (-2,2) $2=2(-2)+b$ $2=-4+b$ (+4 +4) $6=b$ y – intercept (b) = (0,6) Equation: $y=2x+6$

7) (0, -5) and (3, 4)

$m = \frac{4-(-5)}{3-0} = \frac{4+5}{3} = \frac{9}{3} = 3$

Slope (m) = 3

$y = 3x + b \quad (3,4)$

$4 = 3(3) + b$

$4 = 9 + b$

$-9 \quad -9$

$-5 = b$

y – intercept (b) = (0, -5)

Equation: $y = 3x - 5$

8) (-2, 4) and (-7, 4)

$m = \frac{4-4}{-7-(-2)} = \frac{0}{-7+2} = 0$

Slope (m) = 0

$y = 0x + b \quad (-2,4)$

$4 = 0(-2) + b$

$4 = 0 + b$

$4 = b$

y – intercept (b) = (0, 4)

Equation: $y = 0x + 4$ or $y = 4$

9) (-3, 8) and (-3, -1)

$m = \frac{-1-8}{-3-(-3)} = \frac{-9}{-3+3} = \frac{-9}{0}$

Slope (m) = undefined

y – intercept (b) = none

Equation: $x = -3$

10) (4, -2) and (-4, -4)

$m = \frac{-4-(-2)}{-4-4} = \frac{-4+2}{-8} = \frac{-2}{-8} = \frac{1}{4}$

Slope (m) = $\frac{1}{4}$

$y = \frac{1}{4}x + b \quad (4,-2)$

$-2 = \frac{1}{4}(4) + b$

$-2 = 1 + b$

$-1 \quad -1$

$-3 = b$

y – intercept (b) = (0, -3)

Equation: $y = \frac{1}{4}x - 3$