Name: _____

Date: ____ Period: ____

PTS

Daily Homework Quiz — Chapter 5 Review

5PT

1. Write an equation of the line with a slope of –4 and a *y*-intercept of 1.

S/I: $y = -4x + 1$

2. Write a slope-intercept equation of the line that passes through the given points. (–9, 1), (0, –8)

Good Observation: y INT

5pts

STEP 1: $m = \frac{\Delta y}{\Delta x} = \frac{1+8}{-9-0}$ OR $\frac{-8-1}{0+9} = m = -1$

$y = -x - 8$

STEP 2: Pick a point $(0, -8)$

5pts P/S $y + 8 = -1(x - 0)$

$y + 8 = -x$

$-8 \quad -8$

5pts S/I $y = -x - 8$

Pick $(-9, 1)$

$y - 1 = -1(x + 9)$

$y - 1 = -x - 9$

$+1 \quad +1$

$y = -x - 8$

3. An electronics game store sells used games for $12.99 with a $20 membership fee. Write an equation that gives the total cost to become a member and buy games as a function of the number of games that are purchased. Then find the cost for 6 games.

KI: USED GAMES – $12.99/GAME
MEMBERSHIP FEE – $20
COST OF 6 GAMES

DEFINE VARIABLE: x = # of GAMES BOUGHT

WRITE AN EQUATION: $f(x) = 20 + 12.99x$ 10pts

y = Total cost $

SOLVE: $f(6) = 20 + 12.99(6) = 97.94$

ANSWERS IN WORDS:

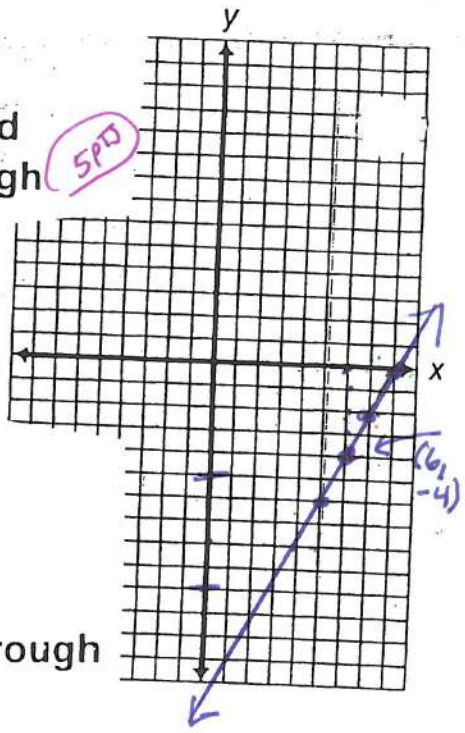
5PB

IT will cost $97.94 for 6 used games.

OVER →

Daily Homework Quiz

4. Write an equation in BOTH slope/intercept and point-slope form of the line that passes through (6, –4) and has slope 2. Then Graph.



5pts

P/S → $y + 4 = 2(x - 6)$ (x_1, y_1, M)

$y + 4 = 2x - 12$

$-4 \quad\quad -4$

5pts

S/I: $y = 2x - 16$

5. Write 4 equations of the line that passes through (–1, –6) and (3, 10).

20pts

$M = \Delta y / \Delta x = \frac{-6 - 10}{-1 - 3} = \frac{-16}{-4}$ **$M = 4$**

① P/S: $y + 6 = 4(x + 1)$

② P/S: $y - 10 = 4(x - 3)$

③ S/I $y - 10 = 4x - 12$

$+10 \quad\quad +10$

$y = 4x - 2$

④ STANDARD FORM:

$-4x + y = -2$

7. Write the slope-intercept equation of the line that passes through the point (–1, 4) and is parallel to the line $y = 5x - 2$.

// $m = 5$ ← 5pts

// EQUATION: P/S $y - 4 = 5(x + 1)$ ← 5pts

$y - 4 = 5x + 5$

$+4 \quad\quad +4$

S/I $y = 5x + 9$ ← 5pts

8. Write the slope-intercept equation of the line that passes through the point (–1, –1) and is perpendicular to the line $y = -1/4x + 2$.

⊥ $m = 4$ ← 5pts

⊥ EQUATION: P/S $y + 1 = 4(x + 1)$ ← 5pts

$y + 1 = 4x + 4$

$-1 \quad\quad -1$

S/I $y = 4x + 3$ ← 5pts

Algebra 1 Name KEY ID: 1

Chapter 5 More Practice

Date _____ Period ____

Write the SLOPE-INTERCEPT form of the equation of the line described.

1) through: $(2, 5)$, perp. to $y = -\frac{1}{5}x - 5$

$\perp m = 5$

$y = 5x - 5$

P/S $y - 5 = 5(x - 2)$

$y - 5 = 5x - 10$

$+5 \quad +5$

$\perp$ S/I $\boxed{y = 5x - 5}$

2) through: $(3, 3)$, perp. to $y = -\frac{3}{5}x + 4$

$\perp m = 5/3$

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

P/S $y - 3 = \frac{5}{3}(x - 3)$

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

$+3 \quad +3$

$\perp$ S/I $\boxed{y = \frac{5}{3} - 2}$

Write the POINT-SLOPE form of the equation of the line described.

1) Parallel lines have the same slopes.

2) Perpendicular lines have the negative reciprocal slopes.

3) through: $(5, -5)$, parallel to $y = -\frac{8}{5}x + 5$

$// m = \frac{-8}{5}$

$\boxed{y + 5 = -\frac{8}{5}(x - 5)}$

4) through: $(2, 3)$, parallel to $y = \frac{1}{2}x + 4$

$// m = 1/2$

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

5) through: $(4, 3)$, perp. to $y = -\frac{4}{5}x - 2$

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

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

6) through: $(-5, 4)$, perp. to $y = \frac{1}{3}x - 2$

$\perp m = -3$

$\boxed{y - 4 = -3(x + 5)}$

Memorize

1. SLOPE INTERCEPT $y = mx + b$
2. POINT SLOPE $y - y_1 = m(x - x_1)$
3. STANDARD FORM $Ax + By = C$

A, B, C are integers

Write the SLOPE-INTERCEPT form of the equation of the line described.

7) through: $(-1, -3)$, parallel to $y = 5x - 4$

$y = 5x + 2$

$//m = 5$

P/S $y + 3 = 5(x + 1)$

$y + 3 = 5x + 5$

$-3 \quad -3$

S/I $y = 5x + 2$

8) through: $(3, 5)$, parallel to $y = \frac{2}{3}x + 2$

$y = \frac{2}{3}x + 3$

$//m = 2/3$

P/S $y - 5 = \frac{2}{3}(x - 3)$

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

$+5 \quad +5$

S/I $y = \frac{2}{3}x + 3$

Write the slope-intercept form of the equation of the line through the given point with the given slope.

9) through: $(-4, 1)$, slope $= -2$

$y = -2x - 7$

P/S $y - 1 = -2(x + 4)$

$y - 1 = -2x - 8$

$+1 \quad +1$

S/I $y = -2x - 7$

10) through: $(-1, 5)$, slope $= -3$

$y = -3x + 2$

P/S $y - 5 = -3(x + 1)$

$y - 5 = -3x - 3$

$+5 \quad +5$

S/I $y = -3x + 2$

Write the slope-intercept form of the equation of the line through the given points.

11) through: $(-4, 4)$ and $(-2, 1)$

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

$m = \frac{\Delta y}{\Delta x} = \frac{4-1}{-4+2} = \frac{3}{-2}$ $\quad m = -3/2$

P/S $y - 4 = \frac{-3}{2}(x + 4)$

$y - 4 = -\frac{3}{2}x - 6$

$+4 \quad +4$

S/I $y = -\frac{3}{2}x - 2$