

5-Minute Check

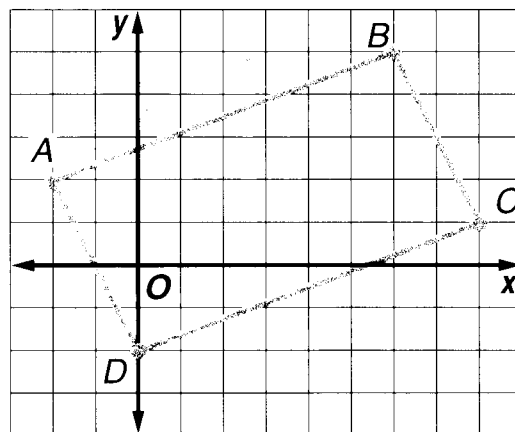
Transparency 5-6

SE-1A WEDNESDAY 3-26-08

Write the point-slope form of an equation for a line that passes through each point with the given slope.

1. $(5, -5), m = 2$
2. $(-1, 5), m = -\frac{7}{16}$
3. Write $y - 3 = \frac{8}{9}(x + 18)$ in slope-intercept form.

4. The figure shows parallelogram $ABCD$.
 - a. Write the standard form of diagonal $\overline{AC}$.
 - b. Write the slope-intercept form of diagonal $\overline{AC}$.



5. Standardized Test Practice

Which is the standard form of an equation of the line that passes through $(9, 1)$ and $(8, 2)$?

- | | |
|------------------|-------------------|
| (A) $x + y = 10$ | (B) $y = -x + 10$ |
| (C) $y + x = 10$ | (D) $y + 10 = x$ |

ANSWERS

1. $y + 7 = 2(x - 5)$

2. $y - 5 = \frac{7}{16}(x + 1)$

3. $y = \frac{8}{9}x + 19$

4a. $x + 10y = 18$

4b. $y = -\frac{1}{10}x + \frac{9}{5}$

5. A

Homework Review: Pg. 289 #16, 17, 20.
(ALL 3 forms)

①⑥ $(-4, -3)$ $m = 1$

x, y

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

$$\boxed{y + 3 = 1(x + 4)} \text{ P-S Form}$$

$$y + 3 = 1(x + 4)$$

$$\begin{array}{cc} y + 3 & = & x + 4 \\ -3 & & -3 \end{array}$$

$$\boxed{y = x + 1} \text{ S-I Form}$$

$$\begin{array}{cc} -1 & & -1 \end{array}$$

$$y - 1 = x$$

$$\begin{array}{cc} -y & & -y \end{array}$$

$$-1 = x - y \text{ or } \boxed{x - y = -1} \text{ S.F.}$$

①⑦ $(-2, 4)$ $m = -3$

$$\boxed{y - 4 = -3(x + 2)} \text{ P-S Form}$$

$$\begin{array}{cc} y - 4 & = & -3x - 6 \\ +4 & & +4 \end{array}$$

$$\boxed{y = -3x - 2} \text{ S-I Form}$$

$$\begin{array}{cc} +3x & & +3x \end{array}$$

$$\boxed{3x + y = -2} \text{ S.F.}$$

20 (9, 1) $m = \frac{2}{3}$

$$\boxed{y - 1 = \frac{2}{3}(x - 9)} \quad \text{P-S Form}$$

$$y - 1 = \frac{2}{3}x - \frac{18}{3}$$

$$y - 1 = \frac{2}{3}x - 6$$

+1 +1

$$\boxed{y = \frac{2}{3}x - 5} \quad \text{S-I Form}$$

+5 +5

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

-y -y

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

$$3 \cdot 5 = 3 \left(\frac{2}{3}x - y \right)$$

$$15 = 2x - 3y \quad \text{or} \quad \boxed{2x - 3y = 15} \quad \text{S.F.}$$

EX) Problems 55-57 on Pg 290

$$m = \frac{5 \text{ dollars}}{\text{week}} \quad \begin{matrix} \leftarrow y \\ \nwarrow x \end{matrix}$$

$$\left(\begin{matrix} 12 \text{ weeks service} & , & 210 \text{ dollars} \end{matrix} \right) \quad \begin{matrix} x & & y \end{matrix}$$

$$\boxed{y - 210 = 5(x - 12)} \quad \text{P-S Form}$$

$$\begin{array}{rcl} y - 210 & = & 5x - 60 \\ + 210 & & + 210 \end{array}$$

$$\boxed{y = 5x + 150} \quad \text{S-I Form}$$

$$y = mx + b$$

$\uparrow$
 $\downarrow$
 STARTING "FEE" = \$150
 (INSTALLATION)

Group practice / homework $\Rightarrow$ Pg 290-291 # 29-31
41-45