Name: Key Date:

Do Now - Lesson 4

Directions: Identify the slope & y-intercept of the following equations.

1. $y=3x-2$	2. $y=-\frac{1}{4}x$	3. $y=-5$	4. $x=\frac{1}{2}$
$m=\frac{3}{1}$ $b=-2$	$m=\frac{-1}{4}$ $b=0$	$m=0$ $b=-5$	m = no slope b = none

Lesson 4: Writing linear equation in slope-Intercept form. $y=mx+b$

Example 1:

$y+\cancel{2}=x$

$-\cancel{2}\ -2$

$\boxed{y=x-2}$

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

$b=-2$

Example 2:

$y+\cancel{2x}=4$

$-\cancel{2x}\ -2x$

$\boxed{y=-2x+4}$

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

$b=4$

Example 3:

$\frac{2y}{2}=\frac{4}{2}$

$\boxed{y=2}$

$m=0$

$b=2$

Example 4:

$2y-\cancel{3x}+6=0$

$+\cancel{3x}\ +3x$

$2y+\cancel{6}=3x$

$-\cancel{6}\ -6$

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

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

$m=\frac{3}{2}$

$b=-3$

Example 5:

$3y+\cancel{x}=12$

$-\cancel{x}\ -x$

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

$\boxed{y=\frac{-1x}{3}+4}$

$m=\frac{-1}{3}$

$b=4$

Example 6:

$2\cancel{x}+3y=9$

$-\cancel{2x}\ -2x$

$\frac{3y}{3}=\frac{-2x}{3}+\frac{9}{3}$

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

$m=\frac{-2}{3}$

$b=3$

Directions: Identify the slope & y-intercept of the following equations.

1. $4+y=x$ $-4 \quad -4$ $\boxed{y=x-4}$ $m=\frac{1}{1}$ $b=-4$	2. $\frac{3y}{3}=\frac{5x}{3}-\frac{9}{3}$ $\boxed{y=\frac{5x}{3}-3}$ $m=\frac{5}{3}$ $b=-3$	3. $9-y=2x$ $-9 \quad -9$ $\frac{-y}{-1}=\frac{2x}{-1}-\frac{9}{-1}$ $\boxed{y=-2x+9}$ $m=\frac{-2}{1} \quad b=9$
4. $\frac{2y}{2}=\frac{4x}{2}+\frac{8}{2}$ $\boxed{y=2x+4}$ $m=\frac{2}{1} \quad b=4$	5. $\frac{x}{4}=\frac{4y}{4}$ $\boxed{y=\frac{1}{4}x}$ $m=\frac{1}{4} \quad b=0$	6. $7-y=5-x$ $-7 \quad -7$ $\frac{-y}{-1}=\frac{-2}{-1}-\frac{x}{-1}$ $\boxed{y=x+2}$ $m=\frac{1}{1} \quad b=2$
7. $7-y=x$ $-7 \quad -7$ $\frac{-y}{-1}=\frac{x}{-1}-\frac{7}{-1}$ $\boxed{y=-x+7}$ $m=\frac{-1}{1} \quad b=7$	8. $\frac{3y}{3}=\frac{6x}{3}-\frac{12}{3}$ $\boxed{y=2x-4}$ $m=\frac{2}{1} \quad b=-4$	9. $3-x=6+y$ $-6 \quad -6$ $\boxed{y=-x-3}$ $m=\frac{-1}{1} \quad b=-3$
10. $\frac{2y}{2}=\frac{5x}{2}+\frac{4}{2}$ $\boxed{y=\frac{5x}{2}+2}$ $m=\frac{5}{2}$ $b=2$	11. $3x-4y-16=0$ $+4y \quad +4y$ $\frac{4y}{4}=\frac{3x}{4}-\frac{16}{4}$ $\boxed{y=\frac{3x}{4}-4}$ $m=\frac{3}{4} \quad b=-4$	12. $5y-10x=-15$ $+10x \quad +10x$ $\frac{5y}{5}=\frac{10x}{5}-\frac{15}{5}$ $\boxed{y=2x-3}$ $m=\frac{2}{1} \quad b=-3$