Algebra **REVIEW 3.3, 6.3, 3.4**

Name **KEY**

Hour _____

SECTION 3.3

Solve the equation.

$8g - 2 + g = 16$

$9g + -2 = 16$
$+2 \quad +2$
$9g = 18$
$\dfrac{9g}{9} = \dfrac{18}{9}$
$\boxed{g = 2}$

$3b + 2(b - 4) = 47$

$3b + 2b + -8 = 47$
$5b + -8 = 47$
$+8 \quad +8$
$5b = 55$
$\dfrac{5b}{5} = \dfrac{55}{5}$
$\boxed{b = 11}$

$-6 + 4(2c + 1) = -34$

$-6 + 8c + 4 = -34$
$-2 + 8c = -34$
$+2 +2$
$8c = -32$
$\dfrac{8c}{8} = \dfrac{-32}{8}$
$\boxed{c = -4}$

$\dfrac{3}{2} \cdot \dfrac{2}{3}(x - 6) = 12 \cdot \dfrac{3}{2} \quad \dfrac{36}{2}$

$x - 6 = 18$
$+6 \quad +6$
$\boxed{x = 24}$

$9x + x + 7 = 13$

$10x + -7 = 13$
$+7 \quad +7$
$10x = 20$
$\boxed{x = 2}$

$\dfrac{5}{2} \cdot \dfrac{2}{5}(3r + 4) = 10 \cdot \dfrac{5}{2} \quad \dfrac{50}{2}$

$3r + 4 = 25$
$-4 \quad -4$
$\dfrac{3r}{3} = \dfrac{21}{3} \quad \boxed{r = 7}$

A bowling alley charges $1.50 for bowling shoes and $3.75 for each game. Paul and Brandon each have $15 to spend at the bowling alley.

Paul brings his own bowling shoes. How many games can he bowl? _____ $x = 4$ games

$x =$ games $3.75x = 15$

Brandon needs to pay for bowling shoes. How many can he bowl? _____ 3 games

$1.50 + 3.75x = 15$
$3.75x = 13.50 \qquad x = 3.6$

Both Paul and Brandon decide to bowl the number of games that Brandon can afford to bowl. Does Paul have enough money to buy a slice of pizza and a pop that cost a total (of $3.25?)

$15 - (3.75)3 = \$3.75$ yes he has enough to buy pizza & pop

↑ # of games

SECTION 6.3

Solve $3(x + 8) < 9$. Graph your solution.

$3x + 24 < 9$
$-24 \quad -24$
$\dfrac{3x}{3} < \dfrac{-15}{3}$
$\boxed{x < -5}$