

Multi-Step Equations Notes (ODDS) Practice (EVENS)

Period _____

Solve each equation.

1) $-108 = -7(5b - 4) + 4$

$$-108 = -35b + 28 + 4$$

$$-108 = -35b + 32 \quad \boxed{b = 4}$$

$$-140 = -35b$$

3) $-128 = -4(-5x - 8)$

$$-128 = 20x + 32$$

$$-160 = 20x$$

$$\boxed{x = -8}$$

5) $-95 = 3x + 7(x - 5)$

$$-95 = 3x + 7x - 35$$

$$-60 = 10x$$

$$\boxed{x = -6}$$

7) $-(4 - 6b) = -6b + 7(b - 7)$

$$-4 + 6b = -6b + 7b - 49$$

$$-4 + 6b = b - 49$$

$$-4 + 5b = -49 \quad \frac{5b}{5} = \frac{-45}{5}$$

9) $-2(1 + 5v) = 1 - 3(1 - 7v)$

$$-2 - 10v = 1 - 3 + 21v$$

$$-2 - 10v = -2 + 21v$$

$$-2 = -2 + 31v \quad \frac{0}{31} = \frac{31v}{31}$$

$$\boxed{v = 0}$$

11) $-5(1 - 7r) = 8(1 + 6r)$

$$-5 + 35r = 8 + 48r$$

$$-5 = 8 + 13r$$

$$-13 = 13r$$

$$\boxed{r = -1}$$

2) $8(1 - 2x) = 88$

$$8 - 16x = 88$$

$$-16x = 80$$

$$\boxed{x = -5}$$

4) $2v - 7(-4v + 3) = 189$

$$2v + 28v - 21 = 189$$

$$30v = 210$$

$$\boxed{v = 7}$$

6) $210 = 7(6a - 6)$

$$210 = 42a - 42$$

$$252 = 42a$$

$$\boxed{a = 6}$$

8) $-3(-5b + 2) = 2 - 2(b + 4)$

$$15b - 6 = 2 - 2b - 8$$

$$17b - 6 = -6$$

$$\frac{17b}{17} = \frac{0}{17}$$

$$\boxed{b = 0}$$

10) $-3m - 4m = 8(3m + 1) - 5(7m + 4)$

$$-3m - 4m = 24m + 8 - 35m - 20$$

$$-7m = -9m - 12$$

$$2m = -12$$

$$\boxed{m = -6}$$

12) $3x - 6(-3x - 3) = 6(3x - 5)$

$$3x + 18x + 18 = 18x - 30$$

$$21x + 18 = 18x - 30$$

$$3x + 18 = -30$$

$$\frac{3x}{3} = \frac{-48}{3}$$

$$\boxed{x = -16}$$