

## Solving Review - Notes

Solve each equation.

1)  $-5(1 - 2x) - 3(8x + 1) = -8x - 4x$

$$\underline{-5 + 10x} - \underline{24x - 3} = -12x$$

$$\underline{-6} - \underline{14x} = -12x$$

$$\underline{-6} = \underline{2x}$$

$$\underline{-3 = x}$$

2)  $8 + 5(1 - 7x) = -6(1 + 7x) - 2$

$$\underline{8 + 5} - \underline{35x} = \underline{-6} + \underline{-42x} - \underline{2}$$

$$\underline{13} - \underline{35x} = \underline{-8} + \underline{-42x}$$

$$\underline{13} + \underline{7x} = \underline{-8}$$

$$\underline{-13} \quad \underline{-13}$$

$$\underline{7x} = \underline{21}$$

$$\underline{x = 3}$$

3)  $-4n - 28 = -3(4n + 8) + 8n$

$$\underline{-4n} - \underline{28} = \underline{-12n} + \underline{-24} + \underline{8n}$$

$$\underline{-4n} - \underline{28} = \underline{-4n} + \underline{-24}$$

$$\underline{-28} = \underline{-24}$$

$$\underline{\text{NO SOLUTION}}$$

Solve each equation by taking square roots.

$$4) 10x^2 - 4 = 356$$

$$\frac{10x^2}{10} = \frac{360}{10}$$

$$x^2 = 36$$

$$x = \sqrt{36}$$

$$x = 6 \text{ AND } -6$$

$$5) 36n^2 - 1 = 99$$

$$\frac{36n^2}{36} = \frac{100}{36}$$

$$n^2 = \frac{100}{36}$$

$$n = \sqrt{\frac{100}{36}} = \frac{\sqrt{100}}{\sqrt{36}} = \pm \frac{10}{6}$$

$$= \pm \frac{5}{3}$$

$$6) 7 - 9b^2 = -551$$

$$\frac{-9b^2}{-9} = \frac{-558}{-9}$$

$$b^2 = 62$$

$$b = \pm \sqrt{62}$$

$$7) 8n^2 + 5 = 773$$

$$\frac{8n^2}{8} = \frac{768}{8}$$

$$n^2 = 96$$

$$n = \pm \sqrt{96}$$

$$n = \pm \sqrt{16 \cdot 6}$$

$$n = \pm 4\sqrt{6}$$