Study Guide

3.1-3.4 Quiz

3.1: Solve One-Step Equations

- Be able to use inverse operations to isolate the variable and solve one-step equations

Ex: $\dfrac{2}{7}n = -4$ $\qquad\qquad$ **Ex:** $-5 + x = -4$ $\qquad\qquad$ **Ex:** $1 - x = -2$

Ex: $x - 4 = -8$ $\qquad\qquad$ **Ex:** $-2t = 12$ $\qquad\qquad$ **Ex:** $\dfrac{x}{-3} = 4$

3.2/3.3: Solve 2/Multi-Step Equations

- Be able to use inverse operations and reverse PEMDAS to solve multi-step equations

Ex: $4w + 2w = 24$ $\qquad\qquad$ **Ex:** $\dfrac{x}{2} + 5 = 11$ $\qquad\qquad$ **Ex:** $3x - 5 = 13$

Ex: $5x - 4(x - 3) = 17$ $\qquad\qquad$ **Ex:** $\dfrac{3}{4}(z - 6) = 12$ $\qquad\qquad$ **Ex:** $-4 = 2(x - 2) - 3(1 - x)$

<u>**3.4: Solve equations with variables on both sides**</u>

- **Be able to solve equations with variables on both sides by moving variable terms together**

<u>**Ex:**</u> $4x + 5 = 17 - 2x$ <u>**Ex:**</u> $3m - 25 - 8m = m - 14$ <u>**Ex:**</u> $4(m - 3) = 2(6 - 2m)$

- **Be able to identify when an equation has no solution, infinite solutions or 0 as the solution**

<u>**Ex:**</u> $-5(3a - 4) = 7a + 27 - 7$ <u>**Ex:**</u> $4(3x + 2) = 2(6x + 4)$

<u>**Ex:**</u> $5z - 6 = (z - 1)5$

<u>**Ex:**</u> $34x = 17$ <u>**Ex:**</u> $9x = 3$ <u>**Ex:**</u> $-4x = 2$ <u>**Ex:**</u> $-10x = -5$