Study Guide

3.1-3.6 Quiz

3.1: Solve One-Step Equations

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

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

3.2/3.3: Solve 2/Multi-Step Equations

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

Ex: $4w + 2w = 24$ **Ex:** $\frac{x}{2} + 5 = 11$ **Ex:** $5x - 4(x - 3) = 17$

Ex: $\frac{3}{4}(z - 6) = 12$ **Ex:** $-4 = 2(x - 2) - 3(1 - x)$

3.4: Solve equations with variables on both sides

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

Ex: $3m - 25 - 8m = m - 14$ **Ex:** $4(m - 3) = 2(6 - 2m)$

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

Ex: $-5(3a-4)=7a+27-7$ **Ex:** $4(3x+2)=2(6x+4)$ **Ex:** $5z-6=(z-1)5$

3.5 – 3.6: Set up and solve proportions

- **Be able to solve proportions using cross – products**

Ex: $\frac{36}{54}=\frac{2x}{6}$ **Ex:** $\frac{m+3}{8}=\frac{40}{64}$ **Ex:** $\frac{7}{112}=\frac{c-3}{8}$

- **Be able to set up a proportion from a word – problem and solve.**

Ex: A map has a scale of 1 cm to 15 km. What is the actual distance if two cities are 6 cm apart on a map?

Ex: A recipe yields that 12 buttermilk biscuits calls for 2 cups of flour. How much flour is needed to make 30 biscuits?