

Algebra I

Notes 4.4, Part 3 Solving Proportions

IDENTIFY THE COEFFICIENT of the variable then MULTIPLY both sides of the equation by the RECIPROCAL OF THE COEFFICIENT to solve the equation.

Example 1 $\frac{x}{4} = -\frac{1}{5}$

Example 2 $\frac{x}{-5} = \frac{8}{2}$

Example 3 $\frac{c}{11} = \frac{3}{4}$

Example 4 $\frac{x}{12} = \frac{60}{9}$

Example 5 $\frac{-x}{36} = \frac{4}{12}$

Example 6 $\frac{7}{4 \cdot 2} = \frac{x}{18}$

Classroom Practice

Write the reciprocal for each number.

1. $\frac{5}{3}$ _____ 2. -5 _____ 3. $2\frac{1}{3}$ _____ 4. $3\frac{3}{8}$ _____

RE-WRITE then SOLVE each equation. Show your work. Box and check your solutions.

1. $\frac{x}{6} = \frac{2}{3}$

2. $\frac{-x}{5} = \frac{4}{5}$

3. $\frac{-x}{5} = \frac{6}{3}$

4. $\frac{x}{30} = \frac{3}{2}$

5. $\frac{-x}{5} = \frac{3}{4}$

6. $\frac{x}{3} = \frac{5}{6}$

7. $\frac{x}{20} = \frac{-5}{4}$

8. $\frac{x}{7} = \frac{4}{14}$

9. $\frac{x}{-15} = \frac{2}{5}$