Lesson 8: Linear Equations in Disguise

Classwork

**Example 3**

Can this equation be solved?

**Example 4**

Can this equation be solved?

**Example 5**

In the diagram below, . Using what we know about similar triangles, we can determine the value of .

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Exercises

Solve the following equations of rational expressions, if possible.

Lesson Summary

Some proportions are linear equations in disguise and are solved the same way we normally solve proportions.

When multiplying a fraction with more than one term in the numerator and/or denominator by a number, put the expressions with more than one term in parentheses so you remember to use the distributive property when transforming the equation. For example:

The equation is now clearly a linear equation and can be solved using the properties of equality.

Problem Set

Solve the following equations of rational expressions, if possible. If the equation cannot be solved, explain why.

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1. In the diagram below, Determine the lengths of and .

