Lesson 29: Solving Radical Equations

Classwork

**Example 1**

Solve the equation .

Exercises 1–4

Solve.








Example 2

Solve the equation

Exercises 5–6

Solve the following equations.



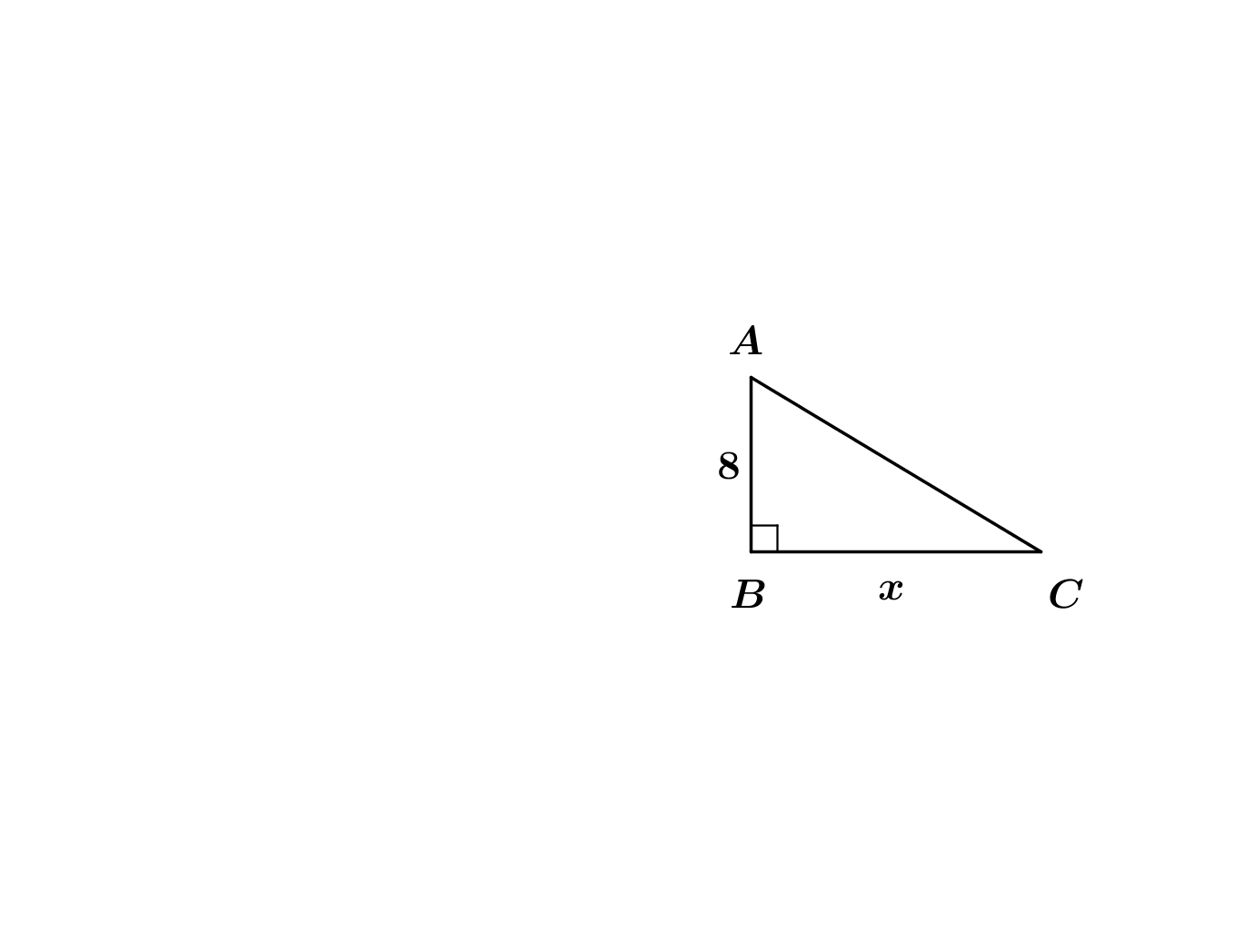
Lesson Summary

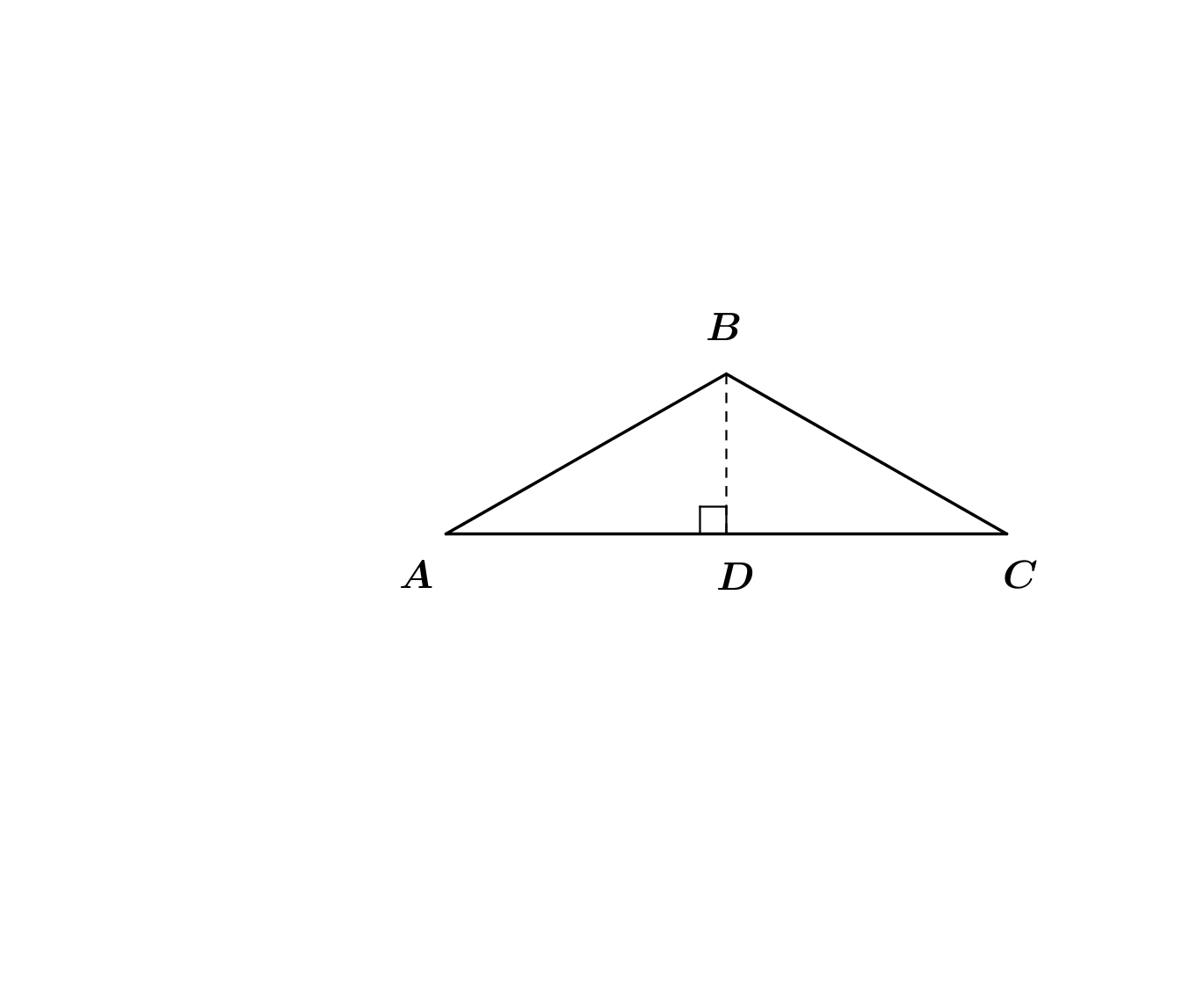
If and is an integer, then . However, the converse is not necessarily true. The statement does not imply that . Therefore, it is necessary to check for extraneous solutions when both sides of an equation are raised to an exponent.

Problem Set

Solve.

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1. Consider the right triangle shown to the right, with and .
   1. Write an expression for the length of the hypotenuse in terms of .
   2. Find the value of for which .
2. Consider the right triangle shown to the right, where and is the altitude of the triangle.
   1. If the length of is and the length of is , write an expression for the lengths of and in terms of .
   2. Write an expression for the perimeter of in terms of .
   3. Find the value of for which the perimeter of is equal to .