Name:

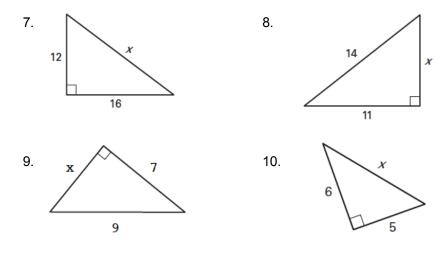
Simplify the following expressions.

- 1.  $\sqrt{180}$  2.  $4\sqrt{7} + 6\sqrt{7}$  3.  $21\sqrt{5} 6\sqrt{5}$
- 4.  $3\sqrt{12} \cdot \sqrt{6}$  5.  $\frac{\sqrt{81}}{\sqrt{100}}$  6.  $\frac{4}{\sqrt{5}}$

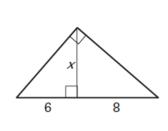
Find the unknown side length. Write your answer in simplest radical form.

12.

14.



Find the value(s) of the variable(s).



13.

11.

