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### 9.3 Practice B

## In Exercises 1-3, use the diagram.

1. Identify the similar triangles.
2. Which segment's length is the geometric mean of $A B$ and $D B$ ?
3. Find $C D, A D$, and $A C$.


## In Exercises 4-6, find the value of $\boldsymbol{x}$.

4. 


5.

6.


In Exercises 7-9, find the geometric mean of the two numbers.
7. 12 and 24
8. 16 and 25
9. $\frac{1}{2}$ and 40

## In Exercises 10-12, find the value(s) of the variable(s).

10. 


11.

12.

13. You build a cornhole game. The game is constructed from a sheet of plywood supported by two boards. The two boards form a right angle and their lengths are 12 inches and 46.5 inches.
a. Find the length $x$ of the plywood to the nearest inch.

b. You put in a support that is altitude $y$ to the hypotenuse of the right triangle. What is the length of the support? Round your answer to the nearest tenth.
c. Where does the support attach to the plywood? Explain.

