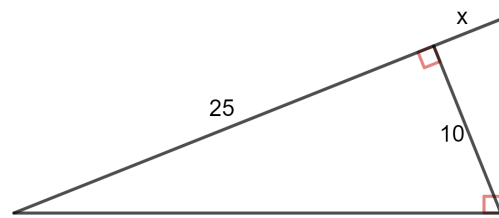
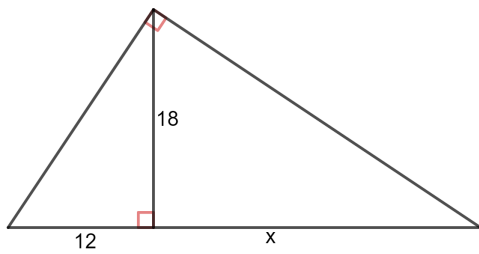
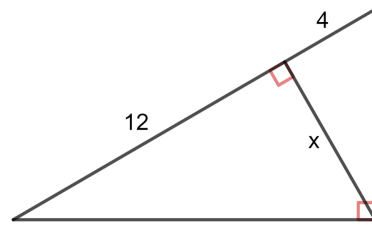
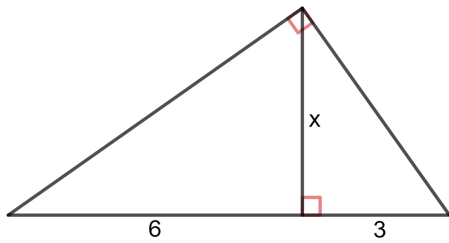


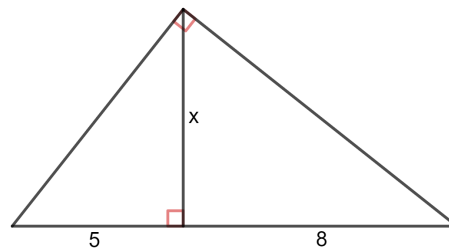
Practice

What is the value of x ?

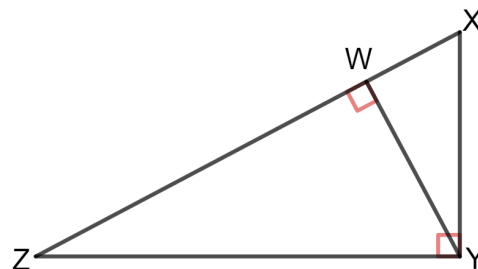


What is the value of x in the figure to the right?

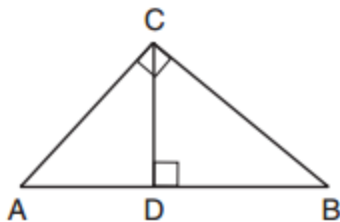
- A 8
- B $2\sqrt{10}$
- C $5\sqrt{10}$
- D $5\sqrt{3}$



In the figure, $\triangle XYZ$ is a right triangle and YW is an altitude to the hypotenuse. Suppose you know that $m\angle X = 62^\circ$. What other angle in the figure must also measure 62° ? Explain.



In the diagram below, $\overline{CD}$ is the altitude drawn to the hypotenuse $\overline{AB}$ of right triangle ABC .



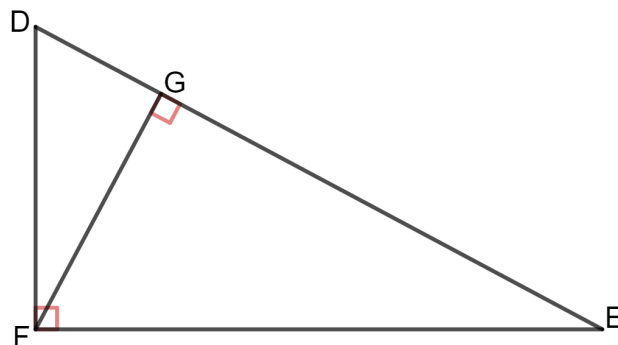
Which lengths would *not* produce an altitude that measures $6\sqrt{2}$?

- | | |
|----------------------------|----------------------------|
| (1) $AD = 2$ and $DB = 36$ | (3) $AD = 6$ and $DB = 12$ |
| (2) $AD = 3$ and $AB = 24$ | (4) $AD = 8$ and $AB = 17$ |

Given the figure with right triangle DEF, $FG \perp DE$,
 $m\angle E = 25^\circ$, $DF = 8$, $DE = 17$.

Complete the similarity statement.

$\triangle DEF \sim \triangle$ _____ $\sim \triangle$ _____



Use the figure from the problem above to calculate each of the following measures.

$m\angle D =$ _____

$m\angle DFG =$ _____

$m\angle GFE =$ _____

$FE =$ _____

$FG =$ _____