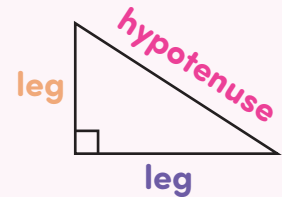


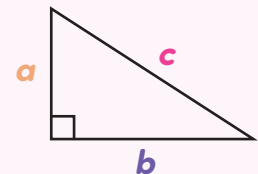
PYTHAGOREAN THEOREM: FIND THE MISSING LEG

The Pythagorean theorem relates the sides of a right triangle. It states that in a right triangle, the square of the hypotenuse is equal to the sum of the squares of the legs.

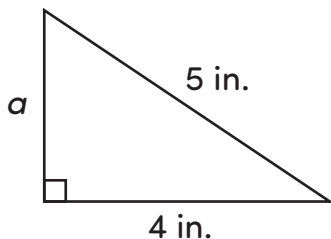


Use the following equation to show the Pythagorean theorem, where a and b represent the legs and c represents the hypotenuse:

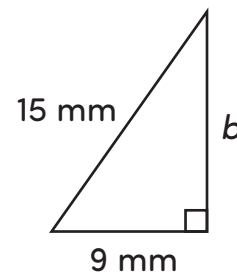
$$a^2 + b^2 = c^2$$



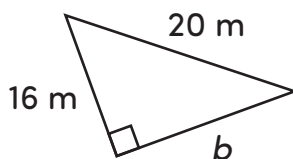
Apply it! Use the Pythagorean theorem to find the length of each missing leg.



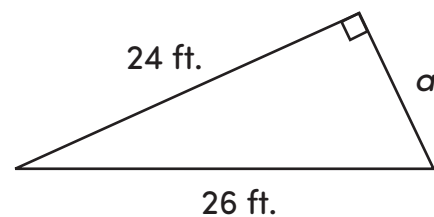
$$a = \underline{\hspace{1cm} 3 \text{ in.} \hspace{1cm}}$$



$$b = \underline{\hspace{1cm} 12 \text{ mm} \hspace{1cm}}$$



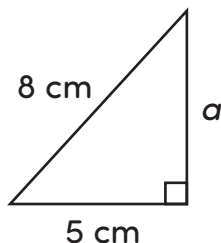
$$b = \underline{\hspace{1cm} 12 \text{ m} \hspace{1cm}}$$



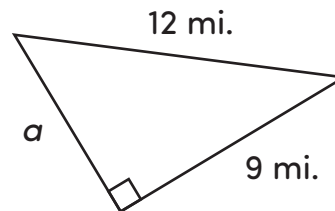
$$a = \underline{\hspace{1cm} 10 \text{ ft.} \hspace{1cm}}$$

PYTHAGOREAN THEOREM: FIND THE MISSING LEG

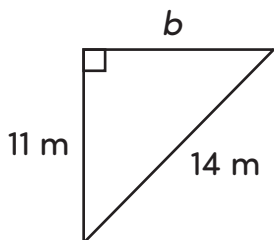
Keep going! Use the Pythagorean theorem to find the length of each missing leg. Round each answer to the nearest tenth.



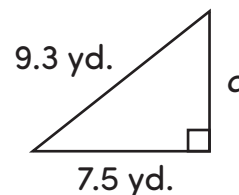
$$a \approx \underline{6.2 \text{ cm}}$$



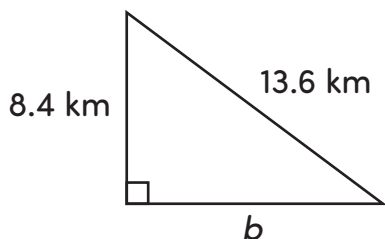
$$a \approx \underline{7.9 \text{ mi.}}$$



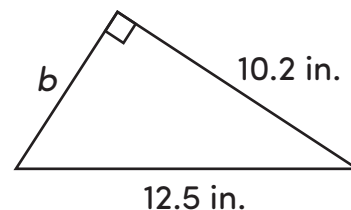
$$b \approx \underline{8.7 \text{ m}}$$



$$a \approx \underline{5.5 \text{ yd.}}$$



$$b \approx \underline{10.7 \text{ km}}$$



$$b \approx \underline{7.2 \text{ in.}}$$