

Solving Right Angled Triangles
Word Problems

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2020

Word problems

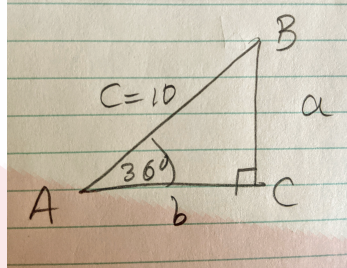
For word problems, use the following procedure:

1. Create a diagram from the problem given.
2. Label all your known quantities and the unknown quantities that you are being asked to find.
3. Sketch in any and all triangles in your diagram that include your unknown quantities.
4. See which trigonometric ratios can be used to find your unknown quantities.

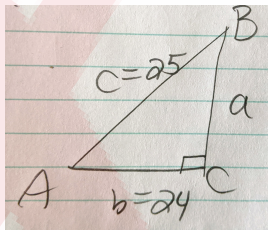
Notes: You may have to do an intermediate step before being able to find your final unknown.

Exercises

1. Solve the right triangle ABC if $\angle A = 36^\circ$ and side $c = 10\text{cm}$.



2. Two trees stand opposite one another at points A and B , on opposite banks of a river. The distance AC along one bank is perpendicular to BA and is measured to be 100ft . Angle ACB is measured to be 79° . How far apart are the trees?
3. Find the distance of a boat from a lighthouse if the lighthouse is 100m tall, and the angle of depression is 6° .
4. Solve the right triangle ABC given that side $c = 25\text{cm}$ and $b = 24\text{cm}$.



5. Solve the right triangle ABC given that $c = 10\text{cm}$ and $b = 8\text{cm}$.

