

Right Triangle Geometry and Trigonometry Review

Directions: Answer all the following problems in the spaces provided on this page. Show all your work when solving for the unknown quantities.

Formulas: Given the right triangle as pictured to the right. The following formulas can be used to solve for unknown sides or angles in the right triangle.

The Laws of Sines and Cosines can be used when the triangle is other than a right triangle.

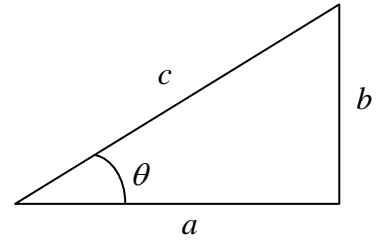
$$\sin \theta = \frac{b}{c}$$

$$\cos \theta = \frac{a}{c}$$

$$\tan \theta = \frac{b}{a}$$

$$\text{Law of Sines : } \frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

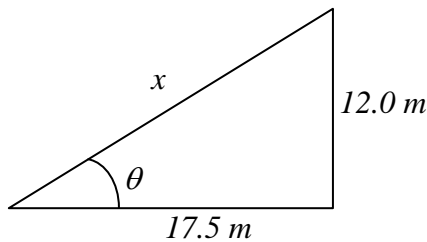
$$\text{Law of Cosines : } c^2 = a^2 + b^2 - 2ab \cos C$$



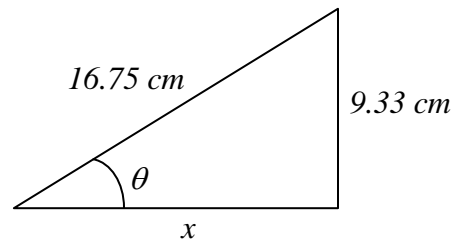
Pythagorean T

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

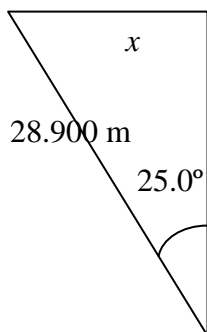
1. Solve for x .



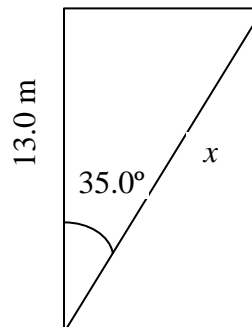
2. Solve for x .



3. Solve for x .

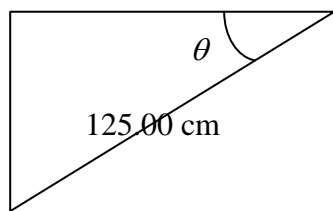


4. Solve for x .



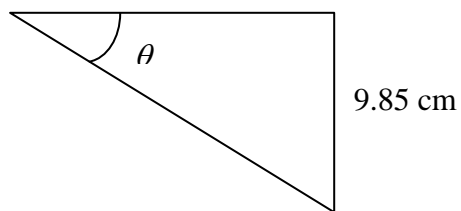
5. Solve for θ .

72.90 cm

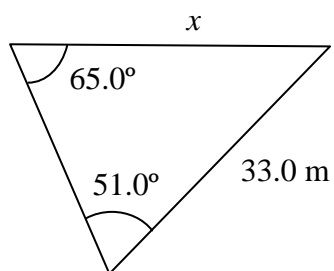


6. Solve for θ .

12.90 cm

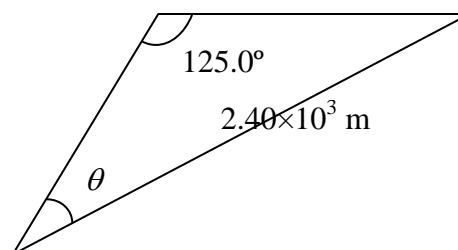


7. Solve for x .



8. Solve for θ .

7.56×10^2 m



9. Solve for x .

