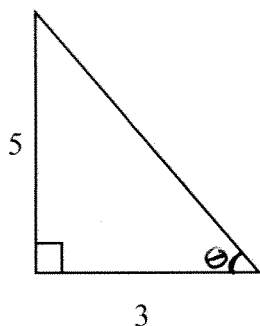


2.2: Problem Solving with 1 Right Triangle

$\sin^{-1} \theta$ is pronounced “sine inverse” and is used to find the measure of unknown angles in a right angled triangle. Similarly for $\cos^{-1} \theta$ and $\tan^{-1} \theta$.

Example 1: Finding the angle given the lengths of sides or the ratio of lengths of sides. Find θ .

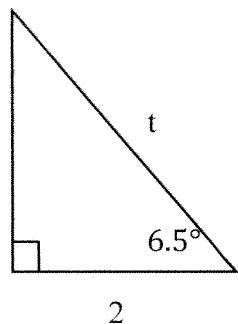


Example 2: A 7m ladder makes an angle of 76° to the ground at its base. How high up the wall does I reach?

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Remember: Any of the inverse trig functions can be used to find angles provided you know the corresponding sides.

Example 3: Find the length of t .



Example 4: A surveyor has mapped out a property as shown in the diagram.

- A) How long is side y ?
- B) How long is side w ?
- C) What is the perimeter and the area of the property?

