

The Primary Trig Ratios:

Sine

Cosine

Tangent

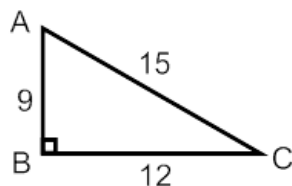
The Reciprocal Trig Ratios:

Cosecant

Secant

Cotangent

Example 1: Given the following right-triangle, state the 6 trig ratios of angle A.



Make sure your calculator is set to DEGREES!

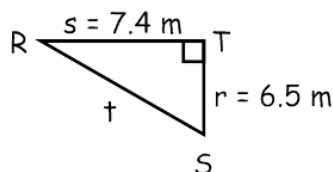
To SOLVE a triangle means:

Hints: Use...

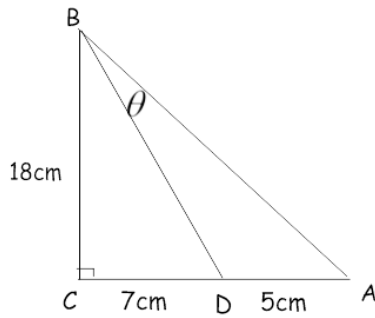
1. _____ if you know 2 sides, & looking for 3rd side.
2. Angle Sum Triangle Theorem (ASTT) if you know ____.
3. _____, _____ or _____ if you know one angle and one side, or if you know two sides and are looking for an angle.

Examples:

1) Solve the triangle.



- 2) Find the measure of $\angle \theta$, to the nearest tenth of a degree.



- 3) On the way to the landing spot, a skydiver got off track and got his parachute stuck amongst the branches of a tree. The skydiver notes that the angle of depression to the actual landing spot is 15° . If the skydiver is hanging 37 feet above ground, by how many feet did the skydiver miss the landing spot? Round to the nearest tenth of a foot.

4) Solve for x .

a) $\cot x = 1.2$

b) $\sec x = 2$

5) $\sin 30^\circ \sec 60^\circ + \csc 245^\circ$

6) Prove: $\cot 245^\circ + \sec 20^\circ = \csc 245^\circ$