

## Unit 5: Triangle Trigonometry

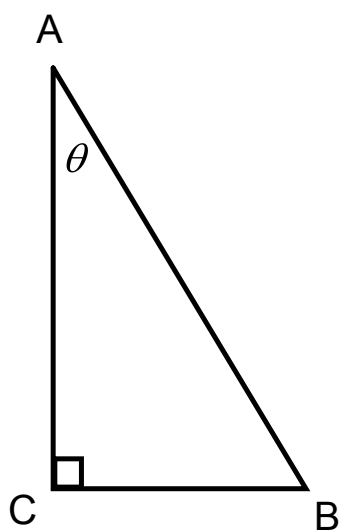
### Day 2: Primary Trig Ratios

Today we will...

1. Solve right-triangles using trigonometry.
2. Solve word problems involving angle of elevation.

## Right Triangle Trigonometry

### Labelling Right Triangles



*a*

*b*

*c*

opposite

adjacent

hypotenuse

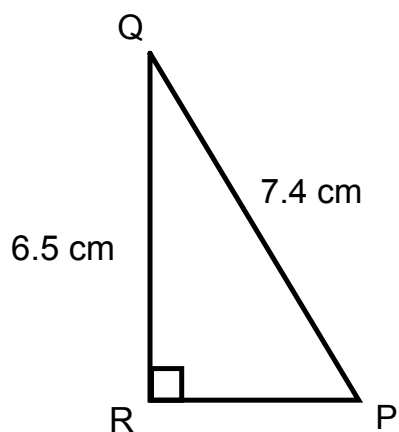
### Primary Trig Ratios

$$\sin \theta =$$

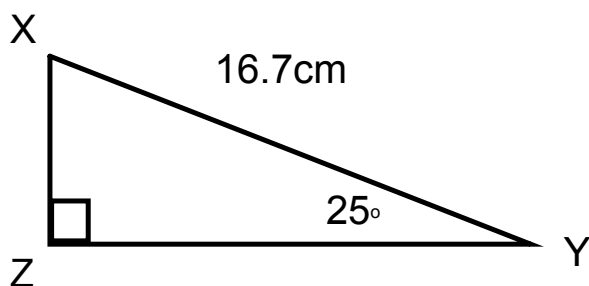
$$\cos \theta =$$

$$\tan \theta =$$

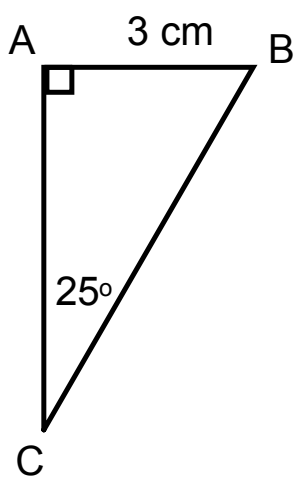
1. Find the measure of  $\angle P$



2. Determine the length of x.



3. Solve the triangle. (Determine **all** of the side lengths and angles)



a =

$\angle B =$

b =

4. The angle of elevation to the top of a building from a point 27m from the base of the building is  $58^\circ$ . What is the height of the building?

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- 6a) 319.91 m
- b) 381.32 m
- c) 78.22 m
- d) 96.53 m