Introduction To Trigonometry Trigonometric Ratios

Opposite & Adjacent Sides in a Right Angled Triangle

In the $\triangle ABC$ right-angled at B, BC is the side opposite to $\angle A$, AC is the hypotenuse and AB is the side adjacent to $\angle A$.



Trigonometric Ratios

For the right $\triangle ABC$, right angled at $\angle B$, the trigonometric ratios of the $\angle A$ are as follows:

•
$$sinA = \frac{opposite \ side}{hypotenuse} = \frac{BC}{AC}$$

• $cosA = \frac{adjacent \ side}{hypotenuse} = \frac{AB}{AC}$
• $tanA = \frac{opposite \ side}{adjacent \ side} = \frac{BC}{AB}$
• $cosecA = \frac{hypotenuse}{opposite \ side} = \frac{AC}{BC}$
• $secA = \frac{hypotenuse}{adjacent \ side} = \frac{AC}{AB}$

•
$$cotA = \frac{aajacent state}{opposite side} = \frac{AB}{BC}$$