

From Brainstorming 1, it is found that:

Given a fixed acute angle in right-angled triangles of different sizes:

- (a) The ratio of the length of the opposite side to the hypotenuse is a
- (b) The ratio of the length of the adjacent side to the hypotenuse is a
- (c) The ratio of the length of the opposite side to the length of the adjacent side is a

The relationships of the ratios obtained from Brainstorming 1 are trigonometric ratios known as **sine**, **cosine** and **tangent**, that is:

sine

=

$\frac{\text{opposite side}}{\text{adjacent side}}$

cosine

=

$\frac{\text{opposite side}}{\text{hypotenuse}}$

tangent

=

$\frac{\text{adjacent side}}{\text{hypotenuse}}$