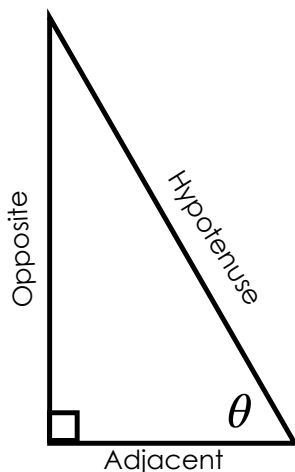


## 8.1 Trigonometric Ratios

Students will be able to do trig like a math genius

### Trigonometric Ratios

There are three basic trigonometric ratios: **sine**, **cosine**, and **tangent**. These ratios just represent the ratio's of the different sides of a right triangle.



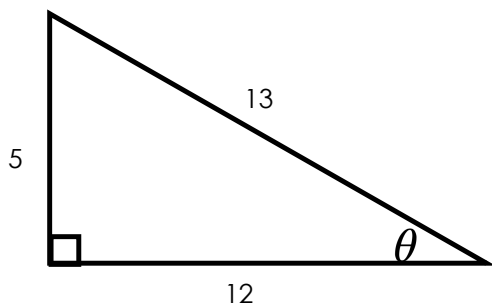
$$\sin \theta = \frac{\text{Opposite}}{\text{Hypotenuse}}$$

$$\cos \theta = \frac{\text{Adjacent}}{\text{Hypotenuse}}$$

$$\tan \theta = \frac{\text{Opposite}}{\text{Adjacent}}$$

SOHCAHTOA

Find the  $\sin \theta$ ,  $\cos \theta$ , and  $\tan \theta$ .

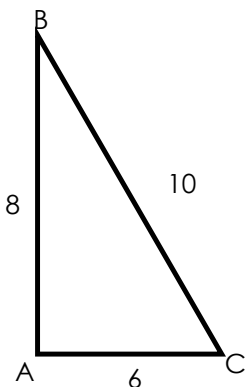


$$\sin \theta =$$

$$\cos \theta =$$

$$\tan \theta =$$

Find the sine, cosine, and tangent of  $\angle B$ .



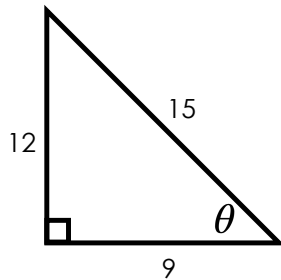
$$\sin B =$$

$$\cos B =$$

$$\tan B =$$

## Independent Practice

Find the  $\sin \theta$ ,  $\cos \theta$ , and  $\tan \theta$ .

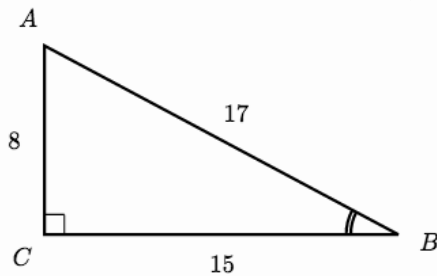


$$\sin \theta =$$

$$\cos \theta =$$

$$\tan \theta =$$

Find the sine, cosine, and tangent of  $\angle B$ .

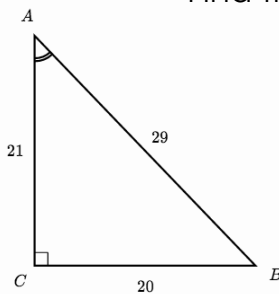


$$\sin B =$$

$$\cos B =$$

$$\tan B =$$

Find the sine, cosine, and tangent of  $\angle A$ .

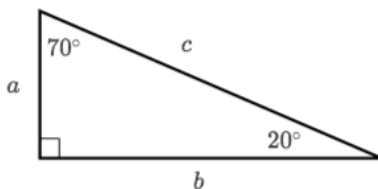


$$\sin A =$$

$$\cos A =$$

$$\tan A =$$

In the triangle below, which of the following is equal to  $\frac{a}{c}$ ?



Select all that apply.

$\cos(20^\circ)$

$\sin(20^\circ)$

$\tan(20^\circ)$

$\cos(70^\circ)$

$\sin(70^\circ)$

$\tan(70^\circ)$