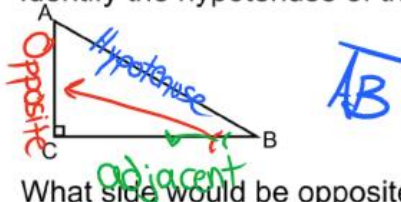


The Basics

Identify the hypotenuse of the following triangle.



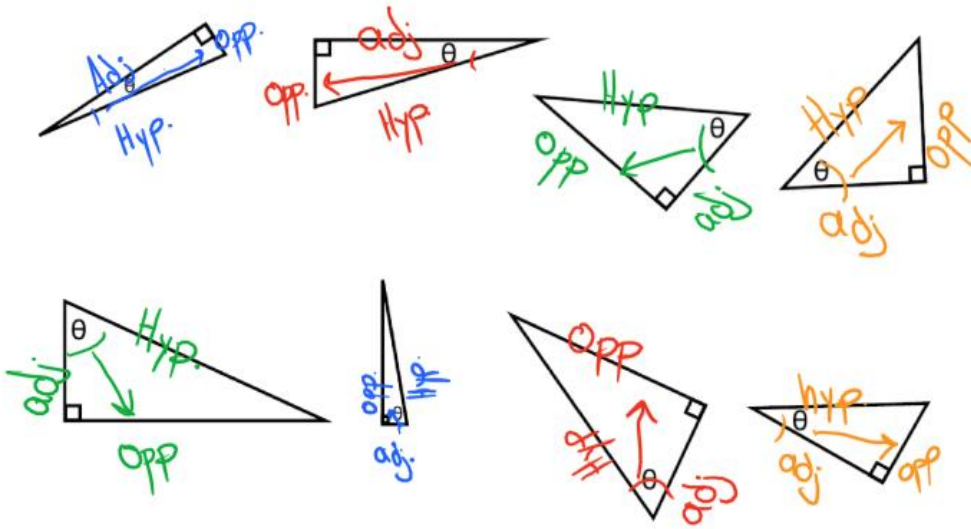
What side would be opposite to angle B in the above triangle?

AC

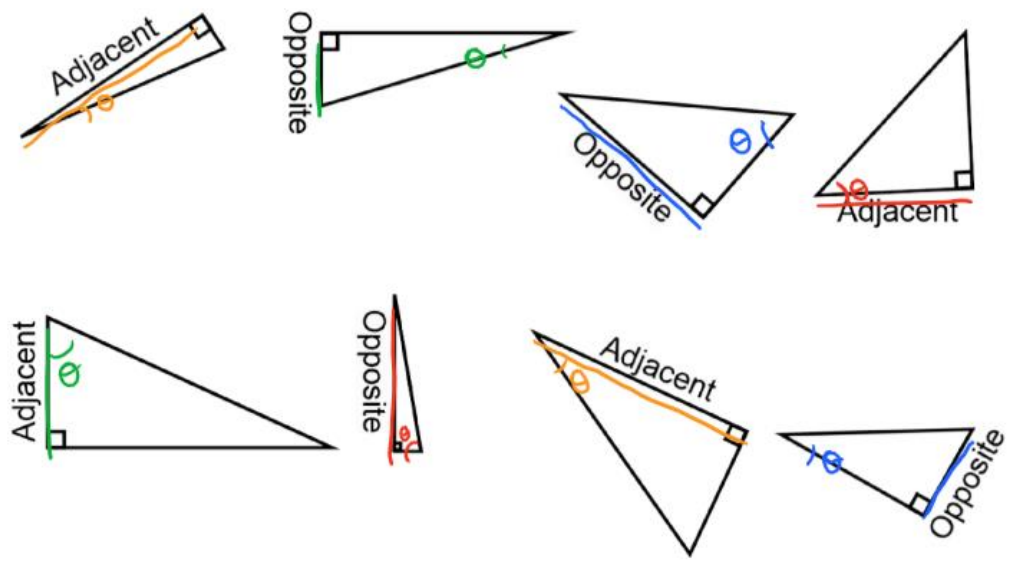
What side would be adjacent to angle B in the above triangle?

CB

Identify the Hypotenuse, adjacent, and opposite sides to angle θ .



Identify the acute angle that would make the identified side correct in the following triangles.



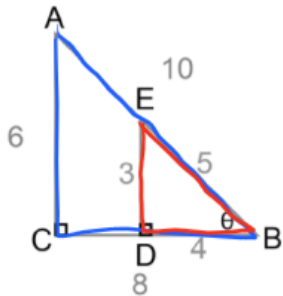
These basics will help you find Right Triangle Trigonometric Ratios.

The right triangle trigonometric functions are:

sine $\frac{\sin}{\sin}$, cosine $\frac{\cos}{\cos}$, and tangent $\frac{\tan}{\tan}$.

Each of these functions is equal to a specific ratio. Refer to foldable for these. You can also write them below.

$$\sin(\theta) = \frac{\text{opp}}{\text{hyp}} \quad \cos(\theta) = \frac{\text{adj}}{\text{hyp}} \quad \tan(\theta) = \frac{\text{opp}}{\text{adj}}$$



What is the $\sin(\theta)$ for $\triangle ABC$?

$$\sin(\theta) = \frac{6}{10} = \frac{3}{5}$$

What is the $\sin(\theta)$ for $\triangle EBD$?

$$\sin(\theta) = \frac{3}{5} \quad \leftarrow \text{same value}$$

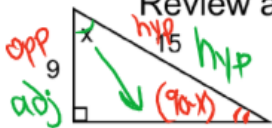
Are right triangle trig. ratios the same for similar triangles? If so, why?

Yes they are, because corresponding sides are proportional.

Key take away

The acute angle θ is the same, so the trig. functions (sine, cosine, tangent) ratios are also the same.

Review and think



What is the $\sin(x)$? $\frac{9}{15}$

$$\sin(x) = \frac{12}{15} = \frac{4}{5}$$

What is the $\cos(x)$? $\frac{12}{15}$

$$\cos(x) = \frac{9}{15} = \frac{3}{5}$$

What is the $\sin(90-x)$?

$$\sin(90-x) = \frac{9}{15} = \frac{3}{5}$$

\uparrow
represents the other acute angle