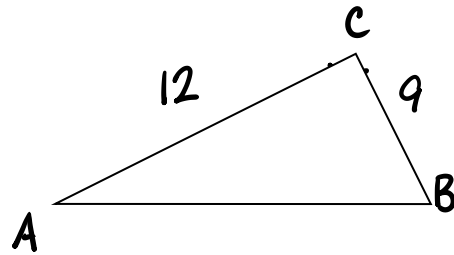


Remember, SOHCAHTOA! When you are finding a side length, use sin, cos, & tan. When you are finding an angle measure, use \sin^{-1} , \cos^{-1} , \tan^{-1} .

1. Find each ANGLE:

- a. $\angle A = 36.87^\circ$
- b. $\angle B = 53.13^\circ$

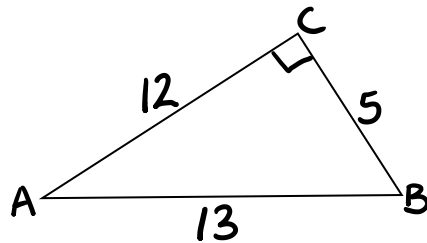


2. Using the figure as marked, fill in the blanks with the missing angle. Then find the missing angle.

a. $\frac{5}{12} = \tan \angle A$

b. $\frac{12}{13} = \cos \angle A$

c. $\frac{5}{13} = \sin \angle A$



d. $\angle A = 22.62^\circ$

e. $\angle B = 67.38^\circ$

3. Draw triangles to answer these!

a. If $\tan \angle A = 1$, find $m\angle A$.

45°

b. If $\sin \angle P = 0.5$, find $m\angle P$.

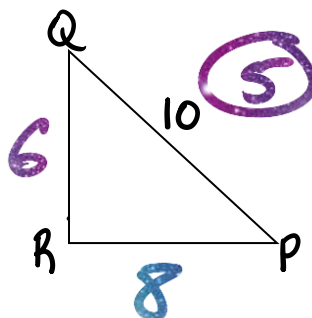
30°

4. Given: $\sin \angle P = \frac{3}{5}$, $PQ = 10$

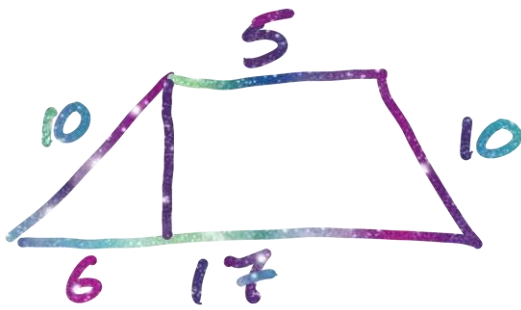
Find: $\cos \angle P$

$\frac{4}{5}$

3



5. Given a trapezoid with sides 5, 10, 17, and 10, find the sine of one of the acute angles.



$$\boxed{\frac{4}{5}}$$

6. Given $\triangle ABC$ with $\angle C = 90$ degrees, indicate whether each statement is true Always, Sometimes, or Never.

a. $\sin \angle A = \cos \angle B$

b. $\sin \angle A = \tan \angle A$

c. $\sin \angle A = \cos \angle A$

A

N

S

7. Solve each equation for x to the nearest integer.

a. $\sin 25^\circ = \frac{x}{40}$

b. $\cos 73^\circ = \frac{35}{x}$

c. $\sin x^\circ = \frac{29}{30}$

$x \approx 17$

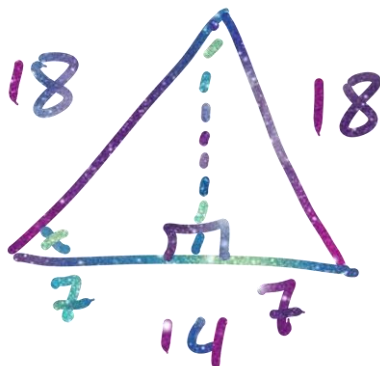
$x \approx 120$

$x \approx 75^\circ$

8. The legs of an isosceles triangle are each 18. The base is 14.

a. Find the base angles to the nearest degree.

b. Find the exact length of the altitude to the base.



a. $\cos x = \frac{7}{18}$

$x = \cos^{-1}\left(\frac{7}{18}\right)$

$\approx 67.11^\circ$

b. $18^2 = 7^2 + x^2$

$x = 5\sqrt{11}$