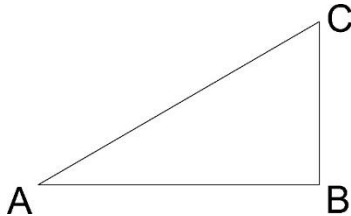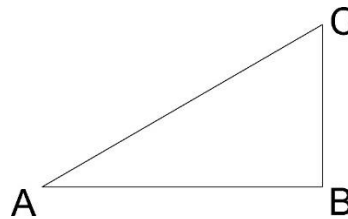OBJECTIVES

- Use inverse trigonometric ratios to find missing angles of right triangles

Label each side of the triangle as opposite, adjacent, or hypotenuse for the given angle.

W1) $\angle A$

W2) $\angle C$

The trig ratios $\sin\theta$, $\cos\theta$, $\tan\theta$ tell you the ratio between the matchings sides, which in turn can be used to find sides.
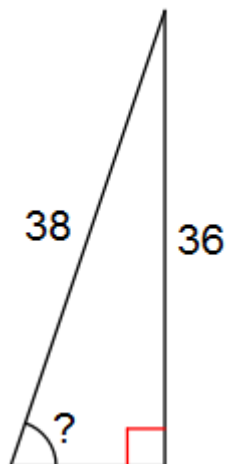
Inverse trig is used to find missing angles.

- $\sin^{-1}$ (sometimes called arcsin)

- $\cos^{-1}$ (sometimes called arccos)

- $\tan^{-1}$ (sometimes called…you guessed it…arctan
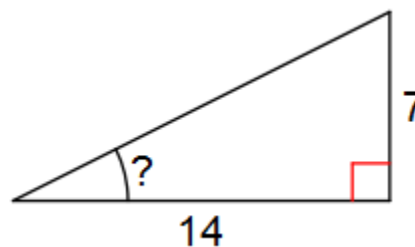
To find missing right triangle angles

1. Set up a sine, cosine, or tangent equation

   a) Identify the angle being used and its corresponding sides

   b) SOH CAH TOA

2. Use $\sin^{-1}$, $\cos^{-1}$, $\tan^{-1}$ to solve the equation for the angle
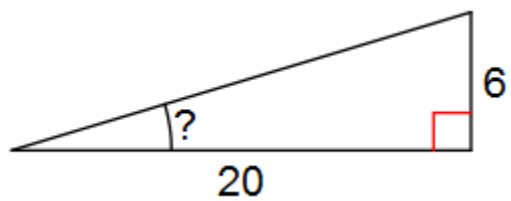
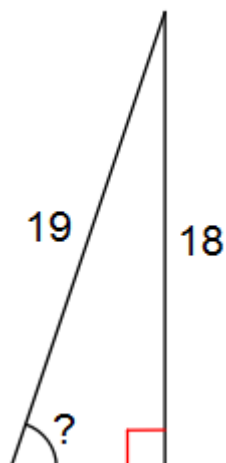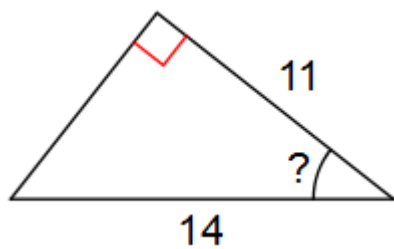Find the missing angle.

A)
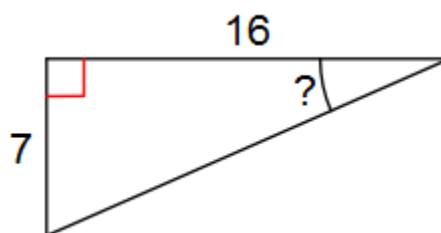

B)

Find the missing angle.

C)

6

?

20

D)

19

18

?

E)

11

?

14

F)

16

?

7

G)

95

57

?

76