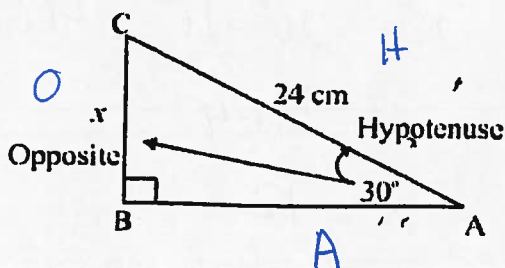


TRIGONOMETRY ASSIGNMENT

SOH CAH TOA

1. Decide whether to use sine, cosine, tangent, or the Pythagorean relationship to find x .
Solve for x .

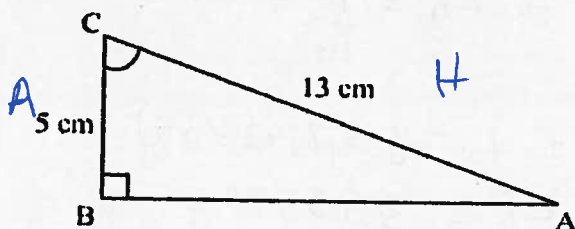


~~SOH~~ SOH - no adjacent

$$\sin 30 = \frac{x}{24}$$

$$x = (24)(\sin 30) = 12$$

2. Decide whether to use sine, cosine, tangent, or the Pythagorean relationship to find $\angle C$.
Solve for $\angle C$.



CAH no Opposite

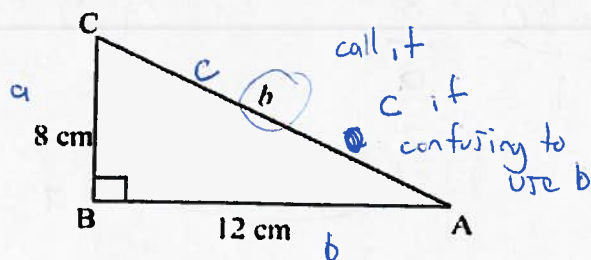
$$\cos \angle C = \frac{5}{13}$$

$$\cos \angle C = 0.3846$$

$$\angle C = \cos^{-1}(0.3846)$$

$$\angle C = 67^\circ$$

3. Decide whether to use sine, cosine, tangent, or the Pythagorean relationship to find b .
Solve for b .



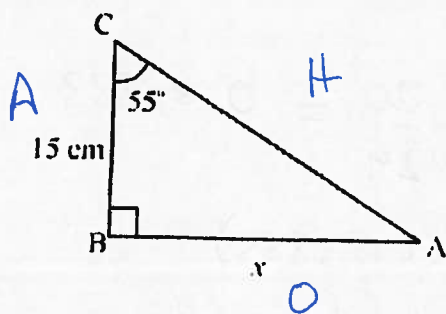
$$a^2 + b^2 = c^2$$

$$c^2 = 8^2 + 12^2 = 64 + 144$$

$$c^2 = 208$$

$$c = \sqrt{208} = 14.4$$

4. Decide whether to use sine, cosine, tangent, or the Pythagorean relationship to find x .
Solve for x .



use TOA no H

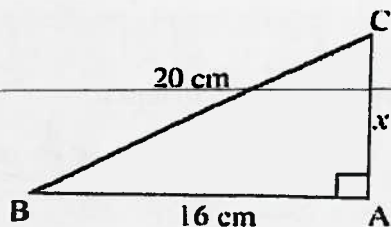
$$\tan 55 = \frac{x}{15}$$

$$(15)(\tan 55) = (1)(x)$$

$$21.4 = x$$

SOH CAH TOA

5. Decide whether to use sine, cosine, tangent, or the Pythagorean relationship to find x . Solve for x .



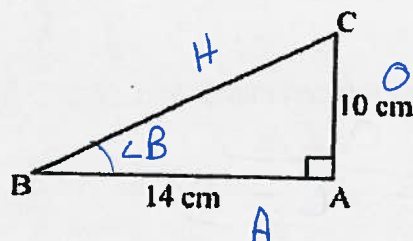
$$16^2 + x^2 = 20^2$$

$$x^2 = 20^2 - 16^2 = 400 - 256$$

$$x^2 = 144$$

$$x = 12$$

6. Decide whether to use sine, cosine, tangent, or the Pythagorean relationship to find $\angle B$. Solve for $\angle B$.



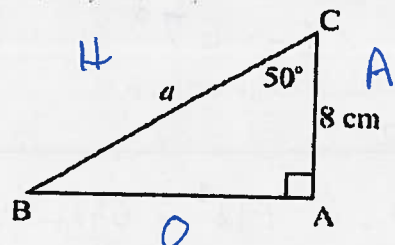
no H use TOA

$$\tan \angle B = \frac{10}{14} = 0.7142857$$

$$\angle B = \tan^{-1}(0.7142857)$$

$$\angle B = 35.537^\circ = 36^\circ$$

7. Decide whether to use sine, cosine, tangent, or the Pythagorean relationship to find a . Solve for a .



no O so use CAH

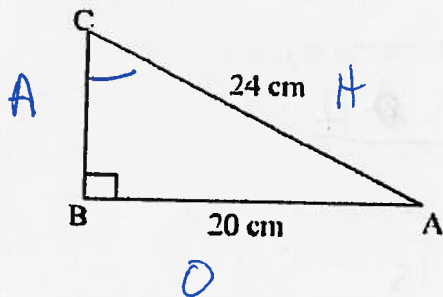
$$\cos 50 = \frac{8}{a}$$

$$(\cos 50)(a) = (8)(1)$$

$$a = \frac{8}{\cos 50}$$

$$a = 12.45$$

8. Decide whether to use sine, cosine, tangent, or Pythagorean relationship to find $\angle C$. Solve for $\angle C$.



no A use SOH

$$\sin \angle C = \frac{20}{24} = 0.83333$$

$$\angle C = \sin^{-1}(0.83333)$$

$$\angle C = 56.4^\circ = 56^\circ$$