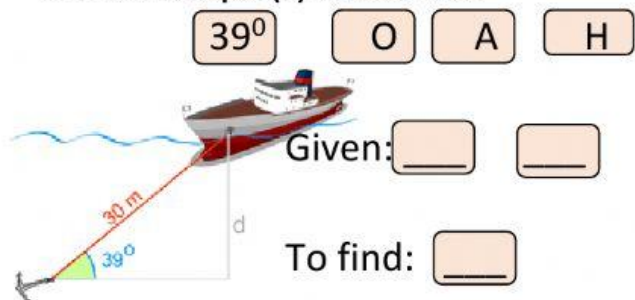


Solving for a side using trigonometric ratios

1. Find the depth (d) of the anchor



S OH C AH T OA

sine cosine tangent

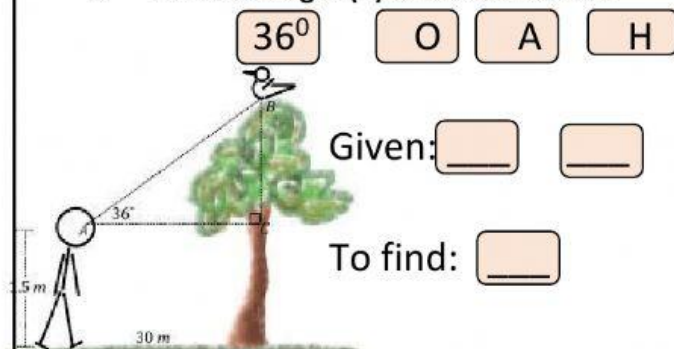
We use ratio.

sin cos tan sin cos tan

$$\sin(39^\circ) = \frac{\text{opposite}}{\text{hypotenuse}} \quad d \quad 30 \text{ m}$$

$$d = 30 \times \sin(39^\circ) = 18$$

2. Find the height (h) of the tree crown



S OH C AH T OA

sine cosine tangent

We use ratio.

sin cos tan sin cos tan

$$\tan(36^\circ) = \frac{\text{opposite}}{\text{adjacent}} \quad h \quad 30 \text{ m}$$

$$h = 30 \times \tan(36^\circ) = 21$$