Sine and Cosine Ratios

Recall: $\sin\theta = \frac{\text{opp}}{\text{hyp}}$ $\cos\theta = \frac{\text{adj}}{\text{hyp}}$ $\tan\theta = \frac{\text{opp}}{\text{adj}}$

(SOH CAH TOA)

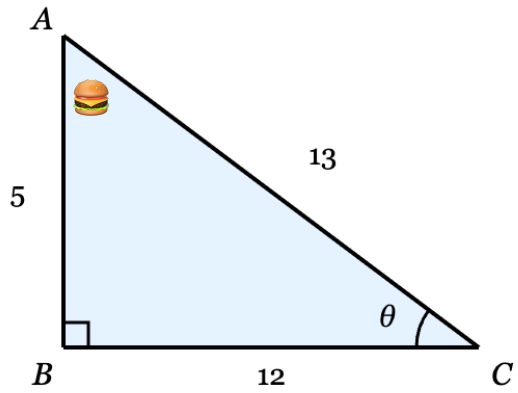
1. For the triangle at right…

   a) State the ratios for $\sin\theta$, $\cos\theta$, and $\tan\theta$.

   b) Then state the ratios for sin 🍔, cos 🍔, and tan 🍔.

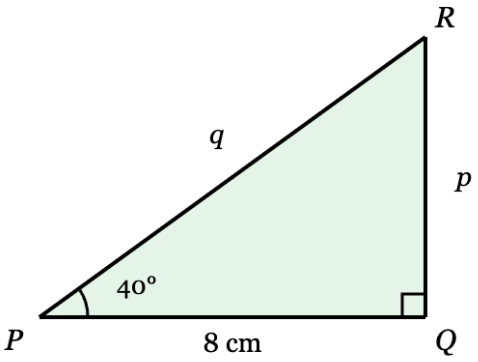
   $\sin\theta =$ $\cos\theta =$ $\tan\theta =$

   sin 🍔 = cos 🍔 = tan 🍔 =



2. Solve the triangle below. Find the measures of all unknown sides and angles.

   NOTE: Round side lengths to one decimal place and angles to the nearest full degree.



3. A person standing on flat ground looks up at the top of a cell tower. The angle of elevation to the top of the tower is $62°$. The person is standing 15 m from the base of the tower.

    a) Sketch and label a diagram. Mark the angle of elevation clearly.

    b) Find the height of the cell tower to the nearest tenth of a metre.