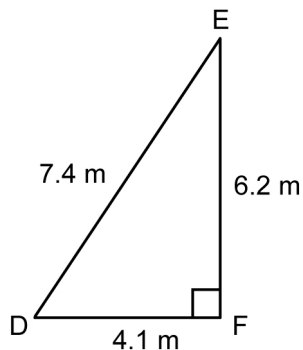


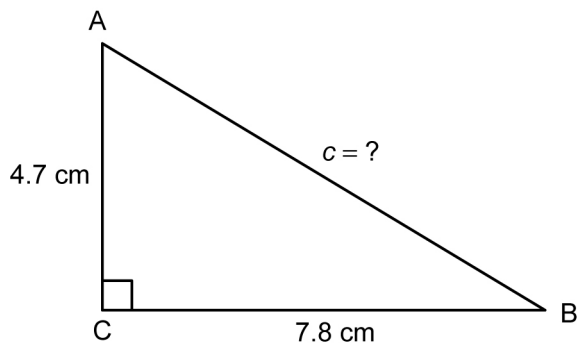
Get Ready

Primary Trigonometric Ratios

1. a) Find the primary trigonometric ratios for $\angle D$ in $\triangle DEF$.
- b) Find the measures of the acute angles in $\triangle DEF$, to the nearest degree.

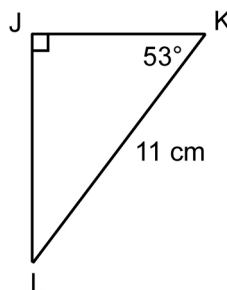


2. a) Find the length of side c in $\triangle ABC$, to the nearest tenth of a centimetre, by applying the Pythagorean theorem.
- b) Find the primary trigonometric ratios for $\angle B$ in $\triangle ABC$.
- c) Find the measures of the acute angles in $\triangle ABC$, to the nearest degree.



Solve Triangles

3. Solve $\triangle JKL$. Round side lengths to the nearest tenth of a centimetre.



4. In $\triangle PQR$, $\angle Q = 90^\circ$, $p = 3.5$ cm, and $r = 4.8$ cm.
 - a) Draw and label $\triangle PQR$.
 - b) Solve $\triangle PQR$. Round the side length to the nearest tenth of a centimetre and the angles to the nearest degree.

Angles of Elevation and Depression

5. From a point 35 m from the base of a building, the angle of elevation of the top of the building is 32° . Apply the tangent ratio to find the height of the building, to the nearest tenth of a metre.
6. From the top of a cliff that is 50 m high, at the edge of a lake, a sailboat is spotted at an angle of depression of 23° . How far from the base of the cliff is the sailboat, to the nearest metre?

Rearranging Formulas

7. Rearrange each formula to isolate the variable indicated.
 - a) $P = a + b + c$ for a
 - b) $d = st$ for t
 - c) $\frac{F}{m} = a$ for F
8. Rearrange each formula to isolate the variable or term indicated.
 - a) $a^2 + b^2 = c^2$ for b^2
 - b) $y = mx + b$ for m
 - c) $\frac{a}{\sin A} = \frac{b}{\sin B}$ for a