

Example 1: Find the length of AD, to the nearest tenth of a meter.

$18 \cdot \sin 50^\circ = \frac{AC}{18} \cdot 18$
 $13.8 = AC$
 $18 \cdot \cos 50^\circ = \frac{CB}{18} \cdot 18$
 $11.6 = CB$

$11.6 \cdot \tan 46^\circ = \frac{DC}{11.6} \cdot 11.6$
 $12.0 = DC$
 $AD = AC - DC$
 $= 13.8 - 12.0$
 $AD = 1.8m$

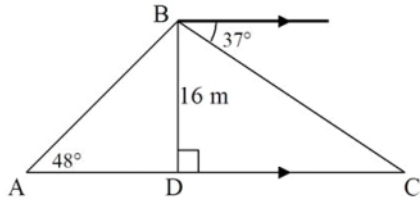
Example 2: Find the length of GH, to the nearest tenth of a meter.

$\sin 52^\circ = \frac{16}{HF}$
 $HF = \frac{16}{\sin 52^\circ}$
 $= 20.3$

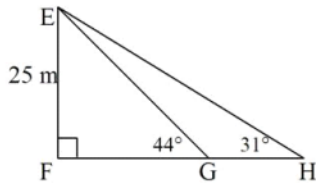
$\sin 74^\circ = \frac{20.3}{GH}$
 $GH = \frac{20.3}{\sin 74^\circ}$
 $GH = 21.1m$

PRACTICE: Calculate the length of each indicated line segment, to the nearest tenth of a meter.

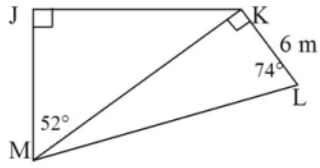
1. Find the length of AC.



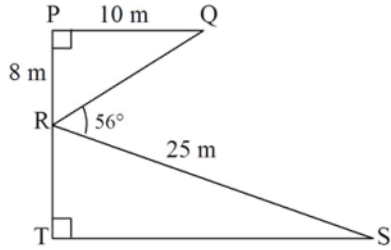
2. Find the length of GH.



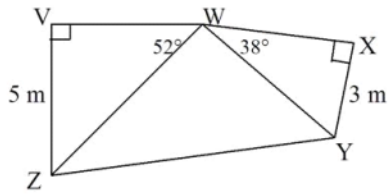
3. Find the length of JK.



4. Find the length of RT.



5. Find the length of ZY.



BONUS. Find the length of JL.

