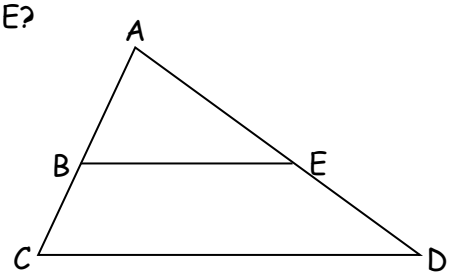
MPM 2D1

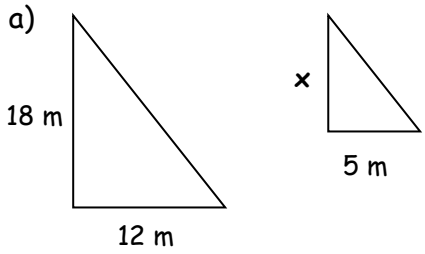
Trigonometry Review

1. In this diagram, $\angle AEB = \angle ADC$. Which statement below is TRUE?
   a) $\Delta AEB \sim \Delta ACD$
   b) Not enough information
   c) $\Delta EAB \sim \Delta DAC$
   d) $\Delta BEA \sim \Delta DCA$

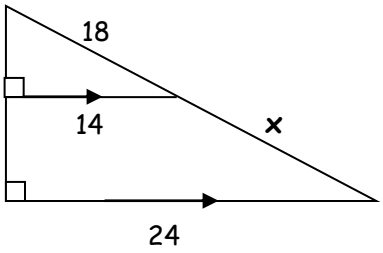


2. Using the similar triangles below, determine the unknown measure.

a)

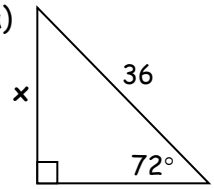


b)

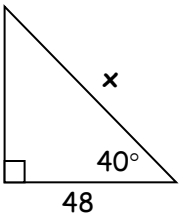


3. Solve for the following unknowns using SOHCAHTOA.

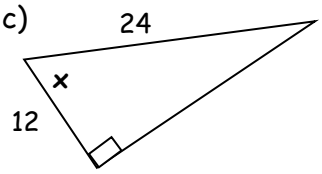
a)



b)



c)

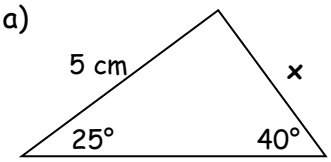


4. A plane approaching a runway is at an elevation of 2500 feet. If the plane is 10000 feet (horizontally) from the end of the runway, what is its angle of descent?

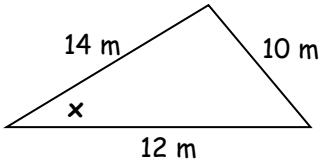
5. From the window of a building the angle of elevation to the roof of a nearby building is 15°. The angle of depression to the base of the same nearby building is 37°. If the buildings are 65 m apart, how tall is the nearby building?

6. Find the unknown value in each of the following diagrams.

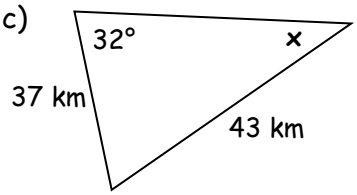
a)



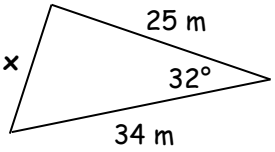
b)



c)



d)



7. What is the area of the triangle in (d) above?

8. Allison is flying a kite. She has released the entire 150 m ball of kite string. She notices that the string forms a 70° angle with the ground. Marc is on the other side of the kite and sights the kite at an angle of elevation of 30°. How far is Marc from Allison?