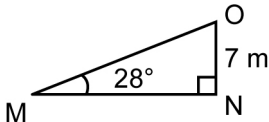
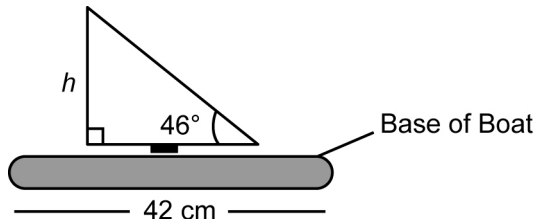


Practice: The Tangent Ratio

- Use a scientific calculator to determine each value to four decimal places.
 - $\tan 15^\circ$
 - $\tan 28^\circ$
 - $\tan 36^\circ$
 - $\tan 40^\circ$
 - $\tan 64^\circ$
 - $\tan 50^\circ$
- Use a scientific calculator to find the measure of each $\angle A$ to the nearest degree.
 - $\tan A = 1.11$
 - $\tan A = 0.70$
 - $\tan A = 1.48$
 - $\tan A = 3.73$
- Given the lengths of opposite and adjacent sides, use a scientific calculator to determine the measure of $\angle A$ to the nearest tenth of a degree.
 - The length of the side opposite $\angle A$ is 3 cm. The length of the side adjacent to $\angle A$ is 4 cm.
 - The length of the side opposite $\angle A$ is 10 cm. The length of the side adjacent to $\angle A$ is 20 cm.
 - The length of the side opposite $\angle A$ is 50 cm. The length of the side adjacent to $\angle A$ is 10 cm.
 - The length of the side opposite $\angle A$ is 9 cm. The length of the side adjacent to $\angle A$ is 3 cm.
- Determine the length of MN to the nearest tenth of a metre.
 
- In $\triangle ABC$, $\angle B = 90^\circ$, $\angle A = 62^\circ$, and $AB = 40$ m. Find the length of BC to the nearest tenth of a metre.
- In $\triangle MNO$, $\angle N = 90^\circ$, $\angle M = 32^\circ$, and $MN = 10$ cm. Find the length of NO to the nearest tenth of a centimetre.
- In $\triangle XYZ$, $\angle Y = 90^\circ$, $\angle X = 47^\circ$, and $XY = 20$ mm. Find the length of YZ to the nearest tenth of a millimetre.
- Vince's model boat has a base 42 cm long. The horizontal length of the sail is half the length of the base of the boat. Determine the height of the sail.
 
- Kai loves to hike. He wants to hike up a trail that rises at an angle of 40° . The vertical distance from the top of the trail to the bottom is 120 m. What is the horizontal distance covered by the trail?
 