



Reteaching

12.6 The Tangent Function

◆ Skill A Finding tangent ratios

Recall In a right triangle, the tangent of an acute angle is the ratio of the length of the leg opposite the angle to the length of the leg adjacent to the angle.

$$\tan \angle A = \frac{a}{b} \quad \tan \angle B = \frac{b}{a}$$

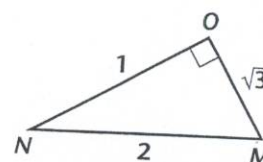
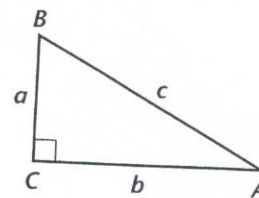
◆ Example 1

Find the tangent of $\angle M$ to the nearest thousandth.

◆ Solution

$$\tan \angle M = \frac{\text{opposite}}{\text{adjacent}} = \frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3} \approx 0.577$$

The tangent of angle M is about 0.577.



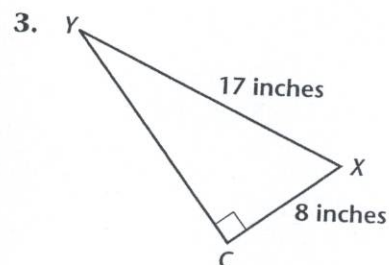
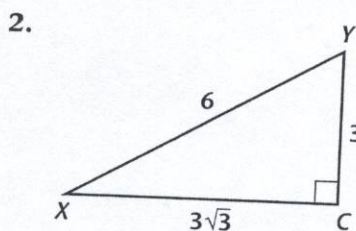
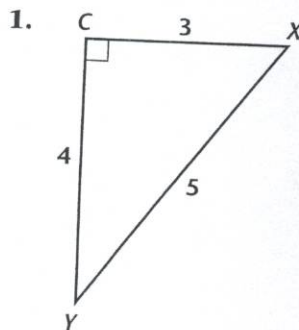
◆ Example 2

Use a calculator to find the tangent of 50° to the nearest thousandth.

◆ Solution

Use the tangent key on your calculator.
 $\tan 50^\circ \approx 1.192$

Find the tangent of each angle X to the nearest thousandth.



Find the tangent of each angle to the nearest thousandth.

4. 20°

5. 45°

6. 72°