

**6.4 Do Now Quiz: Right triangle trigonometry**

Do Now (PreQuiz)

1. Calculate each value. Round to the nearest thousandth.

(a)  $\sin 11^\circ$

(c)  $\tan 23^\circ$

(b)  $\cos 62^\circ$

(d)  $\sin 81^\circ$

2. Find  $\theta$ . Round to the nearest whole degree.

(a)  $\theta = \sin^{-1}\left(\frac{3}{5}\right)$

(c)  $\theta = \cos^{-1}(0.500)$

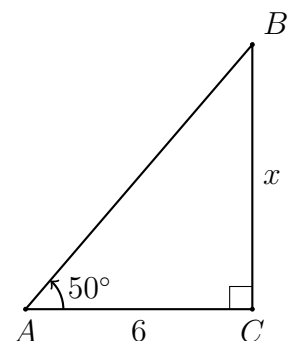
(b)  $\theta = \tan^{-1}(0.88)$

(d)  $\tan \theta = \frac{11.3}{6.9}$

3. Solve each equation for  $x$ , rounding to the nearest tenth.

(a)  $\cos 71^\circ = \frac{x}{15}$

(b)  $\tan 49^\circ = \frac{12.7}{x}$

4. Given right  $\triangle ABC$  with  $AC = 6$ ,  $m\angle A = 50^\circ$ . Find the value of  $BC = x$ .

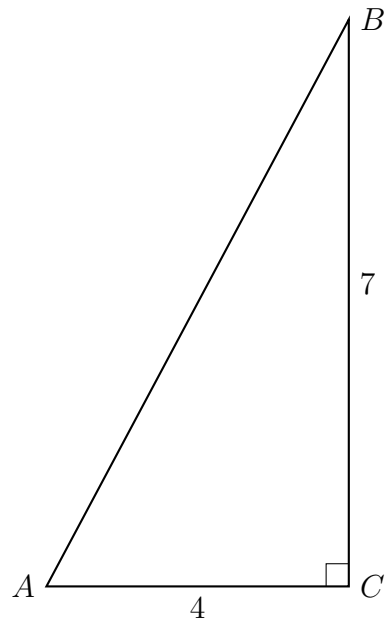
5.  $\triangle ABC$  is shown with  $m\angle C = 90^\circ$  and the lengths of the triangle's sides are  $AC = 4$ ,  $BC = 7$ . (not drawn to scale)

(a) Write down the value of  $\tan A$ .

(b) Find the measure of  $\angle A$ .

(c) Write down the value of  $\tan B$ .

(d) Find the measure of  $\angle B$ .



6. Given  $\triangle ABC$  with  $AC = 9$  centimeters, altitude  $h = 7$  cm, and the base  $\hat{B} = 40^\circ$ . (diagram not to scale)

(a) Find  $\hat{A}$  using  $\hat{A} = \sin^{-1} \frac{7}{9}$ .

(b) Find  $BC$  by solving the Law of Sines

$$\frac{BC}{\sin A} = \frac{9}{\sin B}$$

