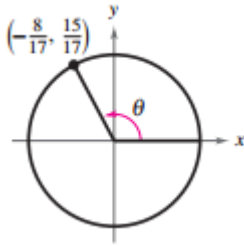


Precalculus Unit 5: Section 5.2 Homework

The Unit Circle

Find the value of the six trig functions for each of the following:

1.



$\cos \theta =$

$\sec \theta =$

$\sin \theta =$

$\csc \theta =$

$\tan \theta =$

$\cot \theta =$

2. $\theta = \frac{7\pi}{6}$

$\cos \theta =$

$\sec \theta =$

$\sin \theta =$

$\csc \theta =$

$\tan \theta =$

$\cot \theta =$

3. $\theta = \frac{-5\pi}{4}$

$\cos \theta =$

$\sec \theta =$

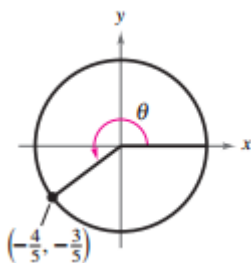
$\sin \theta =$

$\csc \theta =$

$\tan \theta =$

$\cot \theta =$

4.



$\cos \theta =$

$\sec \theta =$

$\sin \theta =$

$\csc \theta =$

$\tan \theta =$

$\cot \theta =$

Evaluate each individual trigonometric function.

5. $\sin(5\pi) =$

6. $\cos\left(\frac{8\pi}{3}\right) =$

7. $\sin\left(\frac{-19\pi}{6}\right) =$

8. $\tan\left(\frac{-9\pi}{4}\right) =$

9. $\sec\left(\frac{11\pi}{2}\right) =$

10. $\sin\left(\frac{11\pi}{6}\right) =$

Complete the following linear speed problem.

11. The circular blade on a saw has a diameter of 7.25 inches and rotates at 4800 revolutions per minute. Find the linear speed of the saw teeth in feet per second as they contact the wood being cut.