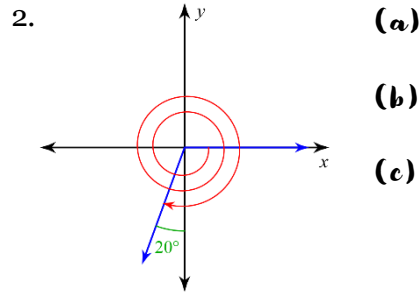
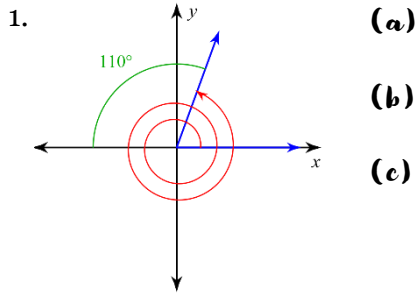


8.REV.2 – End of Unit Review

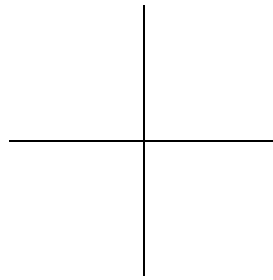
For the angle shown: (a) Find its degree measure; (b) convert to radians; (c) find the measure of a coterminal angle between 0° & 360° .



For the angle whose radian measure is given: (a) Find its degree measure; (b) sketch its graph; (c) find the measure of a coterminal angle between 0° & 360° ; (d) find the measure of its reference angle.

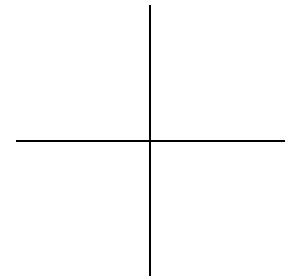
3. $\frac{23\pi}{6}$

- (a)
(b) →
(c)
(d)



4. $-\frac{44\pi}{9}$

- (a)
(b) →
(c)
(d)



5. A pendulum swings through an angle of 20° each second. If the pendulum is 40 inches long, how far does its tip move each second?

You are given the coordinates of a point on the terminal side of the angle θ (in standard position). Sketch the reference triangle in the proper quadrant and find the length of the third side. Then find the exact values of the indicated trig functions expressed in simplest form.

6. $(1, -\sqrt{5})$

7. $(-12, -4)$

$\sin \theta =$

$\sec \theta =$

$\csc \theta =$

$\cos \theta =$

You are given one trigonometric ratio and a description of its location. Sketch the reference triangle in the proper quadrant and find the length of the third side. Then find the exact values of the indicated trig functions expressed in simplest form.

$$8. \sin \theta = -\frac{\sqrt{2}}{3}; \tan \theta < 0$$

$$9. \cot \theta = \frac{1}{7}; \cos \theta < 0$$

$$\tan \theta =$$

$$\sec \theta =$$

$$\cos \theta =$$

$$\csc \theta =$$

Find a positive angle less than 360° or 2π that is coterminal with the given angle. If the angle is not a quadrantal angle, determine the reference angle for the given angle and draw a reference triangle in the proper quadrant. Find the exact values of the indicated trigonometric function. Watch your signs.

$$10. \sec\left(-\frac{19\pi}{4}\right)$$

$$11. \cos\frac{31\pi}{6}$$

$$12. \csc\left(-\frac{4\pi}{3}\right)$$

Reference angle:

Reference angle:

Reference angle:

Reference triangle:

Reference triangle:

Reference triangle:

Exact value:

Exact value:

Exact value:

Find the value – an angle measured in radians in the respective domain – of each expression. *You should be able to find these numbers without a calculator, using a reference triangle in the proper quadrant.*

$$13. \tan^{-1}\left(-\frac{1}{\sqrt{3}}\right)$$

$$14. \cos^{-1}\left(-\frac{1}{2}\right)$$

$$15. \sin^{-1}(-1)$$

Find the exact value of the expression. You should be able to find these using a reference triangle in the proper quadrant.

$$16. \tan\left[\sin^{-1}\left(-\frac{1}{5}\right)\right]$$

$$17. \csc\left[\cos^{-1}\frac{\sqrt{10}}{5}\right]$$