

## Lesson 13.2 Worksheet

Name: \_\_\_\_\_

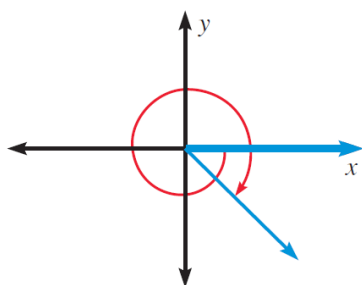
Match the angle measure with the angle.

1.)  $-240^\circ$

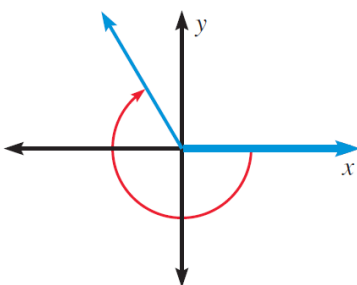
2.)  $600^\circ$

3.)  $-\frac{9\pi}{4}$

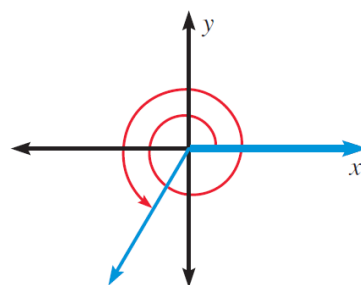
A.



B.

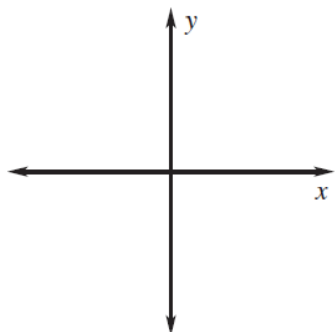


C.

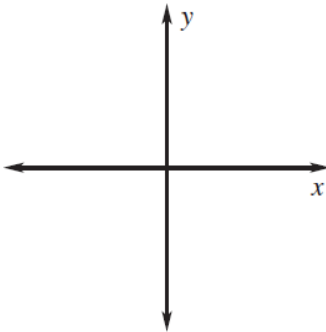


Draw an angle with the given measure in standard position.

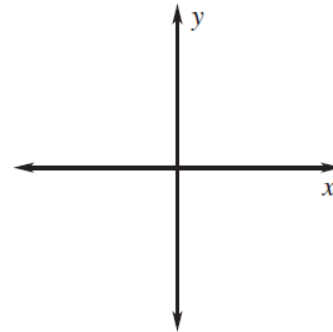
4.)  $450^\circ$



5.)  $\frac{5\pi}{18}$



6.)  $-\frac{5\pi}{3}$



Find one positive angle and one negative angle that are coterminal with the given angle.

7.)  $820^\circ$

8.)  $-125^\circ$

9.)  $\frac{9\pi}{2}$

10.)  $-\frac{7\pi}{6}$

Convert the degree measure to radians or the radian measure to degrees.

11.)  $40^\circ$

12.)  $-260^\circ$

13.)  $\frac{\pi}{9}$

14.)  $\frac{14\pi}{15}$

Evaluate the trigonometric function. When possible, give an exact answer. When using a calculator, round answers to the nearest hundredth.

15.)  $\sec \frac{\pi}{6}$

16.)  $\tan \frac{\pi}{3}$

17.)  $\sin \frac{3\pi}{7}$

18.)  $\cot \frac{\pi}{8}$

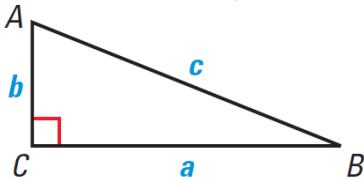
Find the arc length and area of a sector with the given radius  $r$  and central angle  $\theta$ . Round answers to the nearest hundredth.

19.)  $r = 3$  m,  $\theta = \frac{5\pi}{12}$

20.)  $r = 18$  m,  $\theta = 25^\circ$

Solve  $\triangle ABC$  using the diagram and the given measurements. Round answers to the nearest tenth, when necessary.

21.)  $b = 13, c = 24$



22.) A ramp with an incline of  $15^\circ$  is being used to load material into a truck. The tailgate of the truck is 3 feet off of the ground. To the nearest tenth of a foot, find the length of the ramp.

23.) An airplane climbs at an angle of  $11^\circ$  with the ground. Find the ground distance that the plane has covered when it has attained an altitude of 400 feet. Round to the nearest foot.