

## Radian Measure Practice

Write each measure in radians. Express your answer in terms of  $\pi$ . Fill answers in your notes, if needed.

1.  $45^\circ$                       2.  $90^\circ$                       3.  $30^\circ$                       4.  $150^\circ$

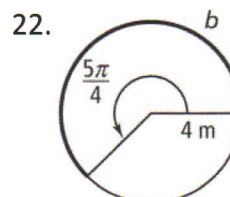
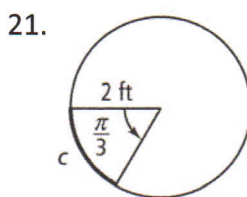
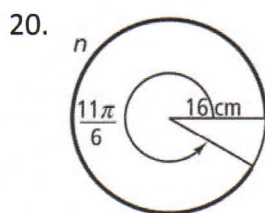
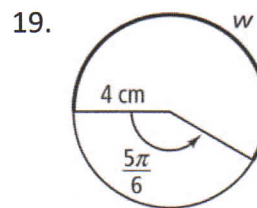
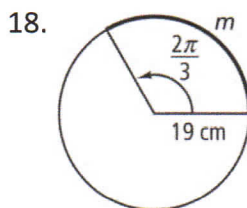
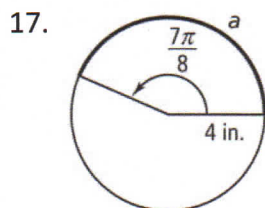
5.  $225^\circ$                       6.  $60^\circ$                       7.  $120^\circ$                       8.  $210^\circ$

Write each measure in degrees. Fill answers in your notes, if needed.

9.  $\pi$                       10.  $2\pi$                       11.  $\frac{3\pi}{4}$                       12.  $\frac{3\pi}{2}$

13.  $\frac{11\pi}{6}$                       14.  $\frac{7\pi}{4}$                       15.  $\frac{4\pi}{3}$                       16.  $\frac{5\pi}{3}$

Use each circle to find the length of the indicated arc. Round your answer to the nearest tenth.



23. A pendulum swings through an angle of 1.8 radians. The distance the tip of the pendulum travels is 32 inches. How long is the pendulum?

24. A 0.8 meter pendulum swings through an angle of 1.5 radians. What distance does the tip of the pendulum travel?