

Formulas:

$$1 \text{ radian} = \frac{180}{\pi} \text{ degrees}$$

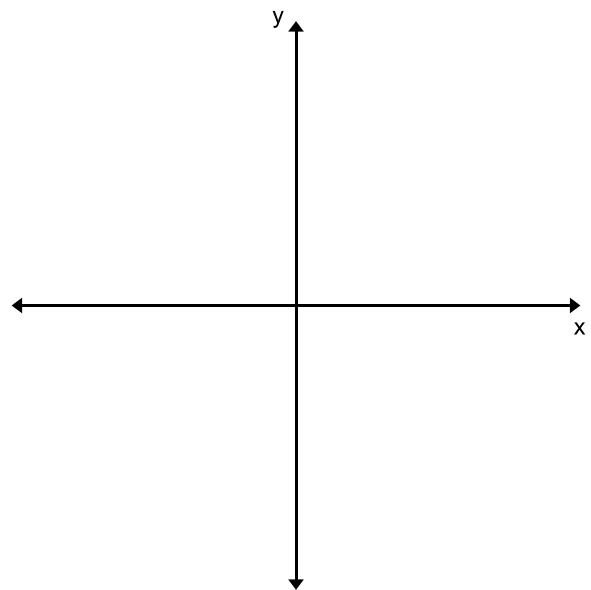
$$1 \text{ degree} = \frac{\pi}{180} \text{ radians}$$

1.) The terminal side of an angle measuring $\frac{8\pi}{7}$ radians lies in Quadrant

- (a) I (b) II (c) III (d) IV

2.) Sketch the angle $\frac{7\pi}{10}$ radians in standard position and label it θ .

Sketch, identify (in radians) and label the reference angle, α .



Find the *EXACT* value of the function.

3.) $\cot \frac{2\pi}{3}$

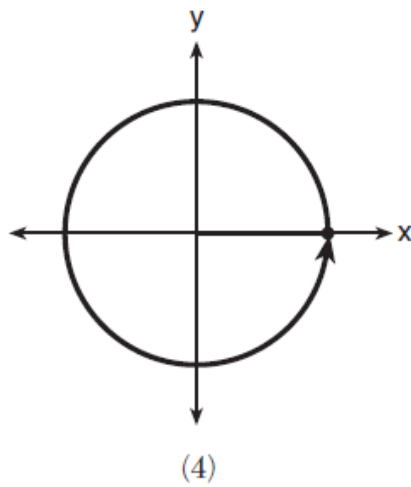
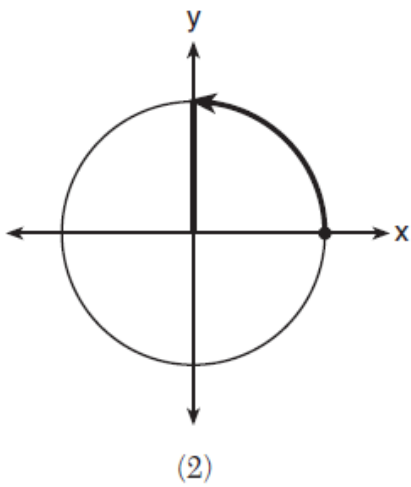
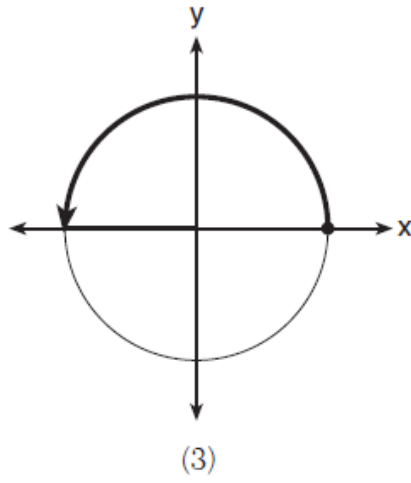
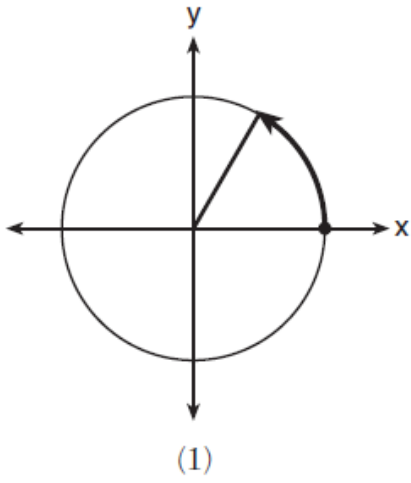
4.) $\sin \frac{5\pi}{4}$

5.) $\sec \frac{\pi}{2}$

6.) Express 130° in radian measure.

7.) An angle of **4 radians** is equivalent to how many degrees? [Round to the *nearest degree*.]

8.) Which diagram shows an angle rotation of 2π radians on the unit circle?



9.) A pizza has a 20 inch diameter. The pizza is cut into six congruent pieces.

Find the length of the arc, *to the nearest tenth of an inch*, of the outer edge of any one piece of pizza?

10.) Given a circle with a radius of 8 cm and a central angle of 150° .

Find the length of the arc, in centimeters, *to the nearest tenth*.

11.) A piece of pie has a central angle of 2.5 radians and the length of the crust of this piece of pie is 14 inches. What is the length of the radius of this piece of pie?