C_09 Key and Trig Practice 3

Wednesday, October 10, 2018 11:22 AM

C_09 Trig Practice 3

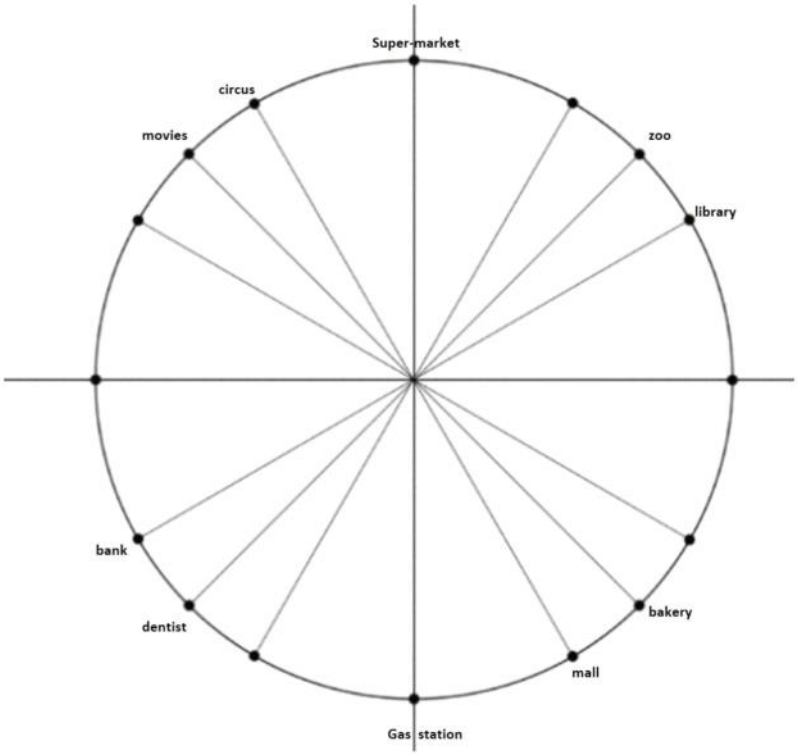
See solutions below

Trigonometry Practice - #3

1. Evil math teachers have replaced the steering wheel on your car with an app that requires you to enter the standard position angle you want your car to rotate through, before it drives to a location. Additionally, this app doesn't work in degrees, but **only in radians.**

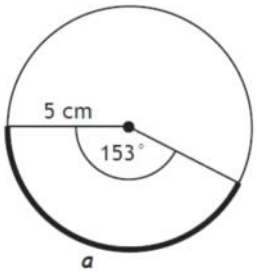
So..... What angle would you need to enter, if you want to go to:

1. The supermarket
2. The zoo
3. The gas station
4. The bank
5. The movies
6. The bakery
7. The library
8. The circus
9. The dentist
10. The mall

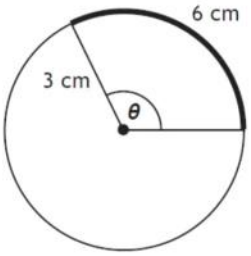


2. Find the requested information. Include units.

a) Solve for a, to the nearest hundredth.

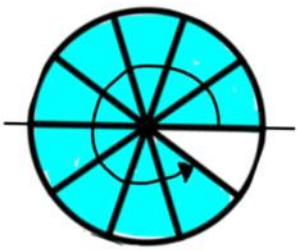
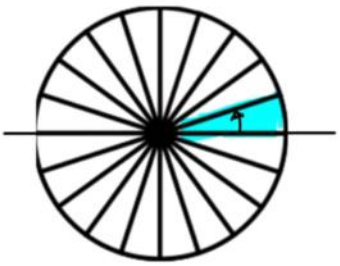


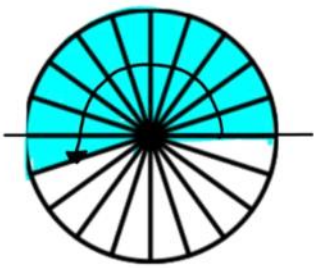
b) Solve for θ. *(express your answer as a degree, to the nearest hundredth.)*

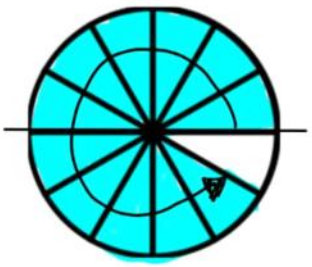
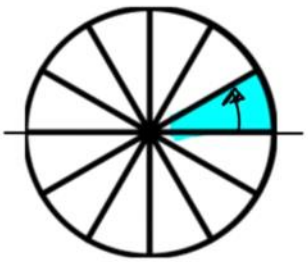
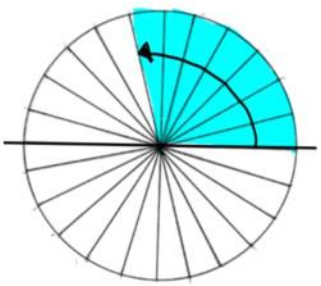
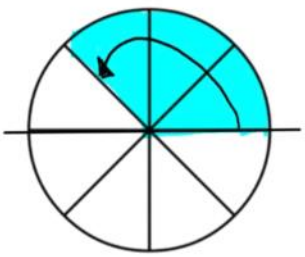
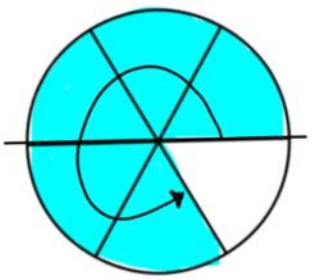


3 For each diagram, find the size of the smallest positive angle between the terminal arm of the given angle and the X-axis. (Answers should be in RADIANS.)





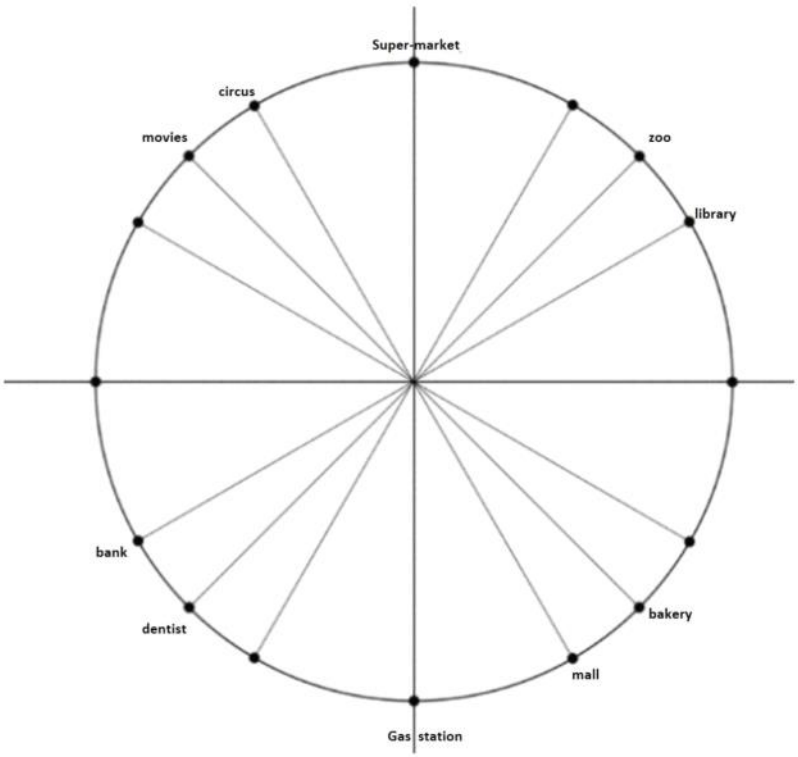
Key

Trigonometry Practice - #3

1. Evil math teachers have replaced the steering wheel on your car with an app that requires you to enter the standard position angle you want your car to rotate through, before it drives to a location. Additionally, this app doesn't work in degrees, but **only in radians.**

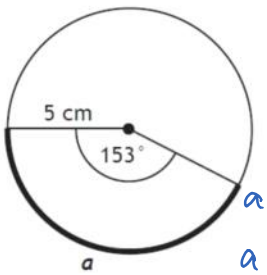
So..... What angle would you need to enter, if you want to go to:

1. The supermarket $\frac{\pi}{2}$
2. The zoo $\frac{\pi}{4}$
3. The gas station $\frac{3\pi}{2}$
4. The bank $\frac{7\pi}{6}$
5. The movies $\frac{3\pi}{4}$
6. The bakery $\frac{7\pi}{4}$
7. The library $\frac{\pi}{6}$
8. The circus $\frac{2\pi}{3}$
9. The dentist $\frac{5\pi}{4}$
10. The mall $\frac{5\pi}{3}$



2. Find the requested information. Include units.

a) Solve for a, to the nearest hundredth.

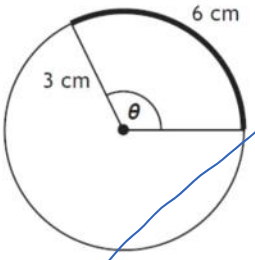


$a = r\theta$

$a = 5 \times 153^\circ \left(\frac{\pi}{180^\circ}\right)$

$a \approx \boxed{13.35 \text{ cm}}$

b) Solve for θ. *(express your answer as a degree, to the nearest hundredth.)*



$a = r\theta$

$\frac{6}{3} = \frac{3}{3}\theta$

$2 = \theta$

$\theta = 2$ radians

Convert: $\frac{2}{1} \times \left(\frac{180^\circ}{\pi}\right) \approx \boxed{114.59^\circ}$

3 For each diagram, find the size of the smallest positive angle between the terminal arm of the given angle and the X-axis. (Answers should be in RADIANS.)