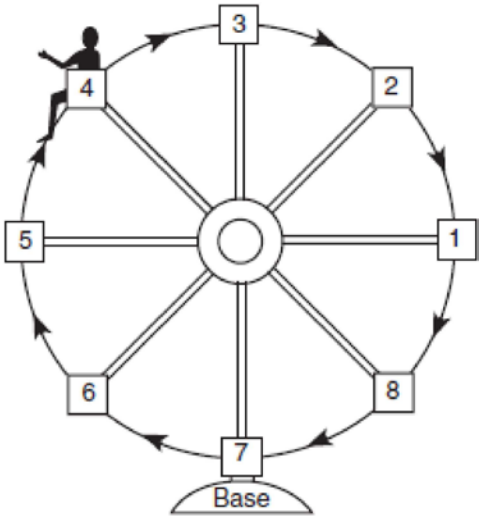
F.TF.A.1: Radian Measure 1

1 The terminal side of an angle measuring $\frac{4\pi}{5}$ radians lies in Quadrant
1) I
2) II
3) III
4) IV

2 Kristine is riding in car 4 of the Ferris wheel represented in the accompanying diagram. The Ferris wheel is rotating in the direction indicated by the arrows. The eight cars are equally spaced around the circular wheel. Express, in radians, the measure of the *smallest* angle through which she will travel to reach the bottom of the Ferris wheel.



3 What is the radian measure of the angle formed by the hands of a clock at 2:00 p.m.?
1) $\frac{\pi}{2}$
2) $\frac{\pi}{3}$
3) $\frac{\pi}{4}$
4) $\frac{\pi}{6}$

4 What is the radian measure of the smaller angle formed by the hands of a clock at 7 o'clock?
1) $\frac{\pi}{2}$
2) $\frac{2\pi}{3}$
3) $\frac{5\pi}{6}$
4) $\frac{7\pi}{6}$

5 Through how many radians does the minute hand of a clock turn in 24 minutes?
1) 0.2π
2) 0.4π
3) 0.6π
4) 0.8π

6 An art student wants to make a string collage by connecting six equally spaced points on the circumference of a circle to its center with string. What would be the radian measure of the angle between two adjacent pieces of string, in simplest form?

F.TF.A.1: Radian Measure 1
Answer Section

1 ANS: 2 REF: 061502a2

2 ANS:

$\frac{5\pi}{4}$. $2\pi \cdot \frac{5}{8} = \frac{5\pi}{4}$

REF: 010421b

3 ANS: 2

$2\pi \cdot \frac{2}{12} = \frac{\pi}{3}$

REF: 010615b

4 ANS: 3

$2\pi \cdot \frac{5}{12} = \frac{10\pi}{12} = \frac{5\pi}{6}$

REF: 061125a2

5 ANS: 4

$2\pi \cdot \frac{24}{60} = 0.8\pi$

REF: 060120b

6 ANS:

$\frac{\pi}{3}$. $2\pi \cdot \frac{1}{6} = \frac{\pi}{3}$

REF: 080223b