
2.1 Radian Measure

1. Answers:

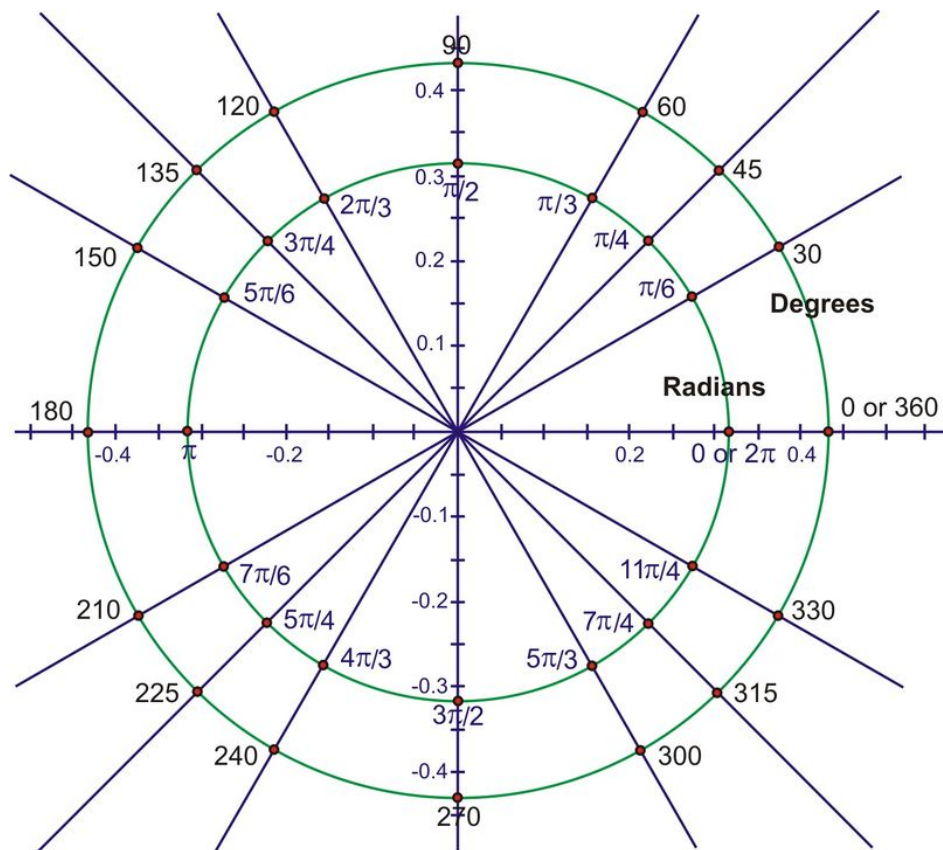
- a. Answer may vary, but 120° seems reasonable.
- b. Based on the answer in part a., the radian measure would be $\frac{2\pi}{3}$
- c. Again, based on part a., $\frac{4\pi}{3}$

2. Answers:

- a. $\frac{4\pi}{3}$
- b. $\frac{3\pi}{2}$
- c. $\frac{7\pi}{4}$
- d. $-\frac{7\pi}{6}$
- e. $\frac{2\pi}{3}$
- f. $\frac{\pi}{12}$
- g. $-\frac{5\pi}{2}$
- h. $\frac{\pi}{5}$
- i. 4π
- j. $\frac{11\pi}{6}$

3. Answers:

- a. 90°
- b. 396°
- c. 120°
- d. 540°
- e. 630°
- f. 54°
- g. 75°
- h. -210°
- i. 1440°
- j. 48°



4.

5. Answers:

- a. 154.3°
- b. 57.3°
- c. 171.9°
- d. 327.3°

6. Answers:

- a. The correct answer is $-\frac{1}{2}$
- b. Her calculator was in the wrong mode and she calculated the sine of 210 radians.

7. Answer:

TABLE 2.1:

x	$\sin(x)$	$\cos(x)$	$\tan(x)$
$\frac{5\pi}{4}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{2}}{2}$	1
$\frac{11\pi}{6}$	$-\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{3}}{3}$
$\frac{2\pi}{3}$	$\frac{\sqrt{3}}{2}$	$-\frac{1}{2}$	$-\sqrt{3}$
$\frac{\pi}{2}$	1	0	undefined
$\frac{7\pi}{2}$	-1	0	undefined