

Day 6

Monday, October 16, 2017
9:55 AM



Copy quiz

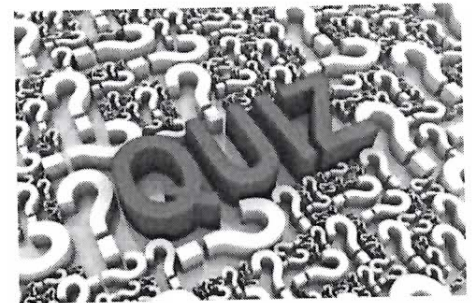
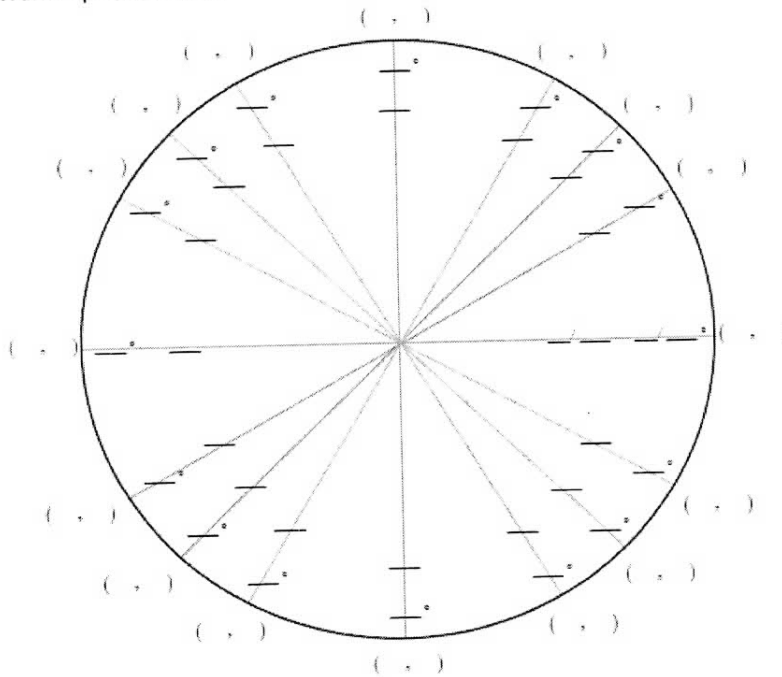
Quiz: Unit circle

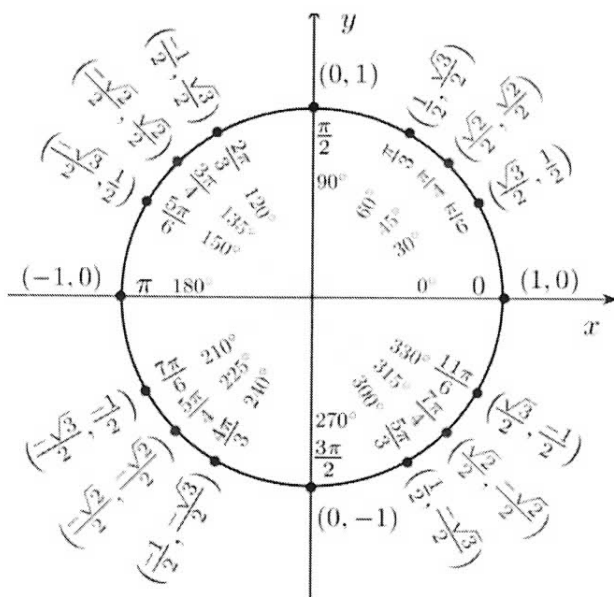
4.3 cont.

Page 251 (9-15,25-31,43-57 odds)

Unit Circle
Quiz

Warm-up Quiz Review





Find the Exact value of each expression.

$$1. \cos \frac{\pi}{3} = \frac{\sqrt{3}}{2}$$

$$2. \sin \frac{4\pi}{3} = -\frac{\sqrt{3}}{2}$$

$$3. \tan \frac{5\pi}{3} = \frac{-\frac{\sqrt{3}}{2}}{\frac{1}{2}} = -\frac{\sqrt{3}}{2} \cdot \frac{2}{1} = -\sqrt{3}$$

$$4. \cos \pi = -1$$

$$5. \sec \frac{7\pi}{4} = \frac{1}{\cos(\frac{7\pi}{4})} = \frac{1}{\frac{\sqrt{2}}{2}} = \frac{2}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{2\sqrt{2}}{2} = \sqrt{2}$$

$$6. \cos \theta = -\frac{1}{2} \quad \theta = \frac{2\pi}{3}, \frac{4\pi}{3}$$

$$7. \sin \theta = \frac{\sqrt{3}}{2} \quad \theta = \frac{\pi}{3}, \frac{2\pi}{3}$$

$$8. \tan \theta = \sqrt{3} \quad \theta = \frac{\pi}{3}, \frac{4\pi}{3}$$

$$\frac{\frac{\sqrt{3}}{2}}{\frac{1}{2}} = \frac{\sqrt{3}}{2} \cdot \frac{2}{1} = \sqrt{3}$$



$$\frac{1}{\sin \theta} = -2$$

$$\sin \theta = -\frac{1}{2} \quad 9. \csc \theta = -2 \quad \theta = \frac{7\pi}{6}, \frac{11\pi}{6}$$

$$10. \sin^2 \theta = \frac{3}{4}$$

$$\sin \theta = \pm \sqrt{\frac{3}{4}} = \pm \frac{\sqrt{3}}{2} \quad \theta = \frac{\pi}{3}, \frac{2\pi}{3}, \frac{4\pi}{3}, \frac{5\pi}{3}$$

$$11. \cos \theta + 1 = 0$$

$$\cos \theta = -1$$

$$\theta = \pi$$

$$12. 2 \sin \theta + \sqrt{3} = 0$$

$$2 \sin \theta = -\sqrt{3}$$

$$\sin \theta = -\frac{\sqrt{3}}{2}$$

$$\theta = \frac{4\pi}{3}, \frac{5\pi}{3}$$

$$13. \cos \theta (\tan \theta - \sqrt{3}) = 0$$

$$\cos \theta \left(\frac{\sin \theta}{\cos \theta} - \sqrt{3} \right) = 0$$

$$\sin \theta - \cos \theta (\sqrt{3}) = 0$$

$$-\cos \theta (\sqrt{3}) = -\sin \theta$$

$$\frac{\sqrt{3} \cos \theta}{\cos \theta} = \frac{\sin \theta}{\cos \theta}$$

$$\sqrt{3} = \tan \theta$$

$$\theta = \frac{\pi}{3}, \frac{4\pi}{3}$$

$$14. 2 \cos^2 \theta - \cos \theta = 1$$

$$2 \cos^2 \theta - \cos \theta - 1 = 0$$

$$2x^2 - x - 1 = 0$$

	x	-1
2x	2x ²	-2x
1	x	-1

$$-2 \quad \uparrow$$

$$-2 \quad \uparrow$$

$$+1 \quad \uparrow$$

$$= -1$$

$$(2x+1)(x-1) = 0$$

$$2 \cos \theta + 1 = 0$$

$$\cos \theta = -\frac{1}{2}$$

$$\theta = \frac{2\pi}{3}, \frac{4\pi}{3}$$

$$\cos \theta - 1 = 0$$

$$\cos \theta = 1$$

$$\theta = 0, 2\pi$$

Practice: Page 251 9-15, 25-31, 43-57 odds only

