

Trig Quiz Review

Trig Quiz: Thursday, May 3, 2018

DIRECTIONS: Convert each degree measure to radian measure and each radian measure to degree measure.

1. -300°

$$= -\frac{5\pi}{3}$$

2. 150°

$$= \frac{5\pi}{6}$$

3. $-\frac{2\pi}{3}$

$$= -120^\circ$$

4. $\frac{10\pi}{3}$

$$= 600^\circ$$

DIRECTIONS: Find the measure of an angle between 0° and 360° coterminal with the angle.

5. -100°

$$= 260^\circ$$

6. 372°

$$= 12^\circ$$

7. -145°

$$= 215^\circ$$

8. -15°

$$= 345^\circ$$

9. 482°

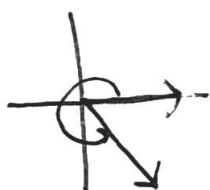
$$= 122^\circ$$

10. 421°

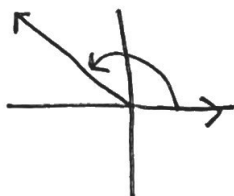
$$= 61^\circ$$

DIRECTIONS: Sketch the following angles in standard position.

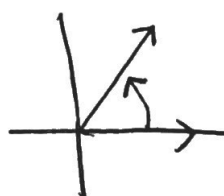
11. 310°



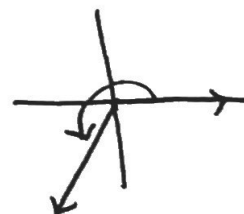
12. 140°



13. 50°

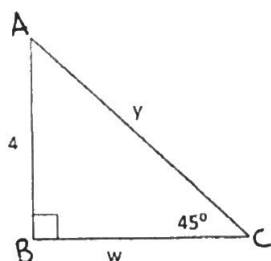


14. 235°



Determine the values of the missing sides of each triangle. Use these values to state each trig ratio. Reduce if necessary.

15)



$$w = 4$$

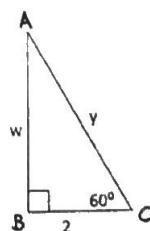
$$y = 4\sqrt{2}$$

$$\tan C = 1$$

$$\sin A = \frac{\sqrt{2}}{2}$$

$$\cos C = \frac{\sqrt{2}}{2}$$

16)



$$w = 2\sqrt{3}$$

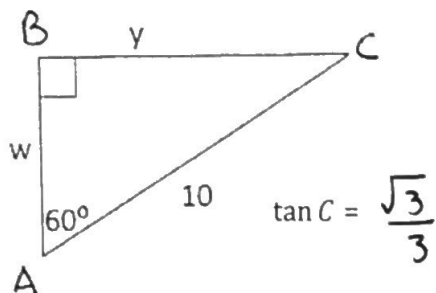
$$y = 4$$

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

$$\sin A = \frac{1}{2}$$

$$\sin C = \frac{\sqrt{3}}{2}$$

17)



$$w = 5$$

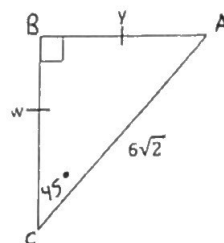
$$y = 5\sqrt{3}$$

$$\tan C = \frac{\sqrt{3}}{3}$$

$$\sin A = \frac{\sqrt{3}}{2}$$

$$\cos C = \frac{\sqrt{3}}{2}$$

18)



$$w = 6$$

$$y = 6$$

$$\cos A = \frac{\sqrt{2}}{2}$$

$$\tan A = 1$$

$$\cos C = \frac{\sqrt{2}}{2}$$

DIRECTIONS: (a) Sketch each angle in standard position.

(b) Determine the reference angle.

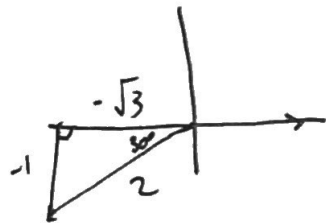
(c) Sketch the reference triangle and correctly label each side.

(d) Find the exact value for the sine, cosine, and tangent of the original angle.

19) 210° QIII

$$RA = 360^\circ - 180^\circ = 30^\circ$$

$$\sin(210^\circ) = -\frac{1}{2}$$



$$\cos(210^\circ) = -\frac{\sqrt{3}}{2}$$

$$\tan(210^\circ) = \frac{\sqrt{3}}{3}$$

21) 135° RA: $180^\circ - 135^\circ = 45^\circ$

$$\sin(135^\circ) = \frac{\sqrt{2}}{2}$$

$$\cos(135^\circ) = -\frac{\sqrt{2}}{2}$$

$$\tan(135^\circ) = -1$$

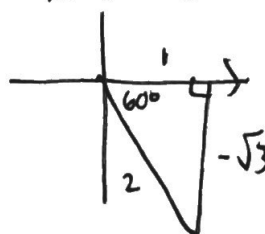
20) 300° QIV

$$RA = 360^\circ - 300^\circ = 60^\circ$$

$$\sin(300^\circ) = -\frac{\sqrt{3}}{2}$$

$$\cos(300^\circ) = \frac{1}{2}$$

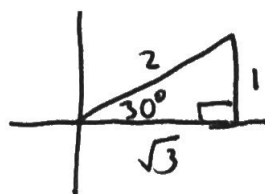
$$\tan(300^\circ) = -\sqrt{3}$$

22) 30°

$$\sin(30^\circ) = \frac{1}{2}$$

$$\cos(30^\circ) = \frac{\sqrt{3}}{2}$$

$$\tan(30^\circ) = \frac{\sqrt{3}}{3}$$



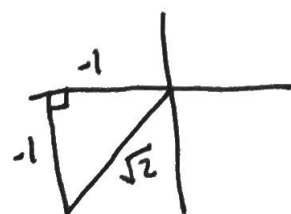
$$23) \frac{5\pi}{4} \cdot \frac{180}{\pi} = 225^\circ$$

$$RA: 225^\circ - 180^\circ = 45^\circ$$

$$\sin\left(\frac{5\pi}{4}\right) = -\frac{\sqrt{2}}{2}$$

$$\cos\left(\frac{5\pi}{4}\right) = -\frac{\sqrt{2}}{2}$$

$$\tan\left(\frac{5\pi}{4}\right) = 1$$



$$24) \frac{2\pi}{3} \cdot \frac{180}{\pi} = 120^\circ$$

$$RA: 180^\circ - 120^\circ = 60^\circ$$

$$\sin\left(\frac{2\pi}{3}\right) = \frac{\sqrt{3}}{2}$$

$$\cos\left(\frac{2\pi}{3}\right) = -\frac{1}{2}$$

$$\tan\left(\frac{2\pi}{3}\right) = -\sqrt{3}$$

