

Classroom Voting Questions: Precalculus

Angles

1. The angles -12° and 102° are
 - (a) complementary
 - (b) supplementary
 - (c) neither

2. The angles 24° , 36° , and 30° are
 - (a) complementary
 - (b) supplementary
 - (c) neither

3. The angles 30° and 150° are
 - (a) complementary
 - (b) supplementary
 - (c) neither

4. The angles 2° and 88° are
 - (a) complementary
 - (b) supplementary
 - (c) neither

5. In what quadrant is the terminal side of 215° ?
 - (a) I
 - (b) II
 - (c) III
 - (d) IV

6. In what quadrant is the terminal side of -300° ?
- (a) I
 - (b) II
 - (c) III
 - (d) IV
7. Which of the following angles is coterminal with a standard position angle of 215° ?
- (a) 45°
 - (b) 145°
 - (c) -145°
 - (d) -215°
8. Find the smallest positive angle coterminal with -980° .
- (a) 260°
 - (b) 100°
 - (c) 60°
 - (d) 20°
9. What is the radian measure of a 216° angle?
- (a) 108π
 - (b) $\frac{5\pi}{6}$
 - (c) $\frac{6\pi}{5}$
 - (d) $\frac{8\pi}{9}$
10. What is the degree measure of a $\frac{5\pi}{3}$ angle?
- (a) 150°
 - (b) 300°
 - (c) 250°
 - (d) 330°

11. In what quadrant is the terminal side of a standard position angle with radian measure $\frac{8\pi}{3}$ radians?
- (a) I
 - (b) II
 - (c) III
 - (d) IV
12. Which of the following angles is complementary to an angle of $\frac{\pi}{3}$ radians?
- (a) $\frac{\pi}{6}$
 - (b) $\frac{\pi}{4}$
 - (c) $\frac{\pi}{3}$
 - (d) $\frac{\pi}{2}$
13. You walk 200 meters around a circular track with a radius of 100 meters. Give an angle in radians that represents your final position relative to your starting position.
- (a) 2 radians
 - (b) 100 radians
 - (c) $\frac{1}{2}$ radian
 - (d) 2π radians
14. Find the length of the arc spanned by an angle of 3 radians on a circle of radius 2 feet.
- (a) 2 radians
 - (b) 3 radians
 - (c) 6 radians
 - (d) 1.5 radians
15. Consider a circle of radius r having a central angle θ (measured in radians). If s is the length of the arc of the circle corresponding to θ , then $s = r\theta$.
- (a) True, and I am very confident.

- (b) True, but I am not very confident.
- (c) False, but I am not very confident.
- (d) False, and am very confident.

16. If the legs of a right triangle are 8 and 15, how long is the hypotenuse?

- (a) $\sqrt{23}$
- (b) 17
- (c) 23
- (d) 289