Pre-Calculus: Lesson 4.1 Radian and Degree Measure p. 261 #13,15,19,21,25,27, #31-41 odd.

Please complete the assignment using the "tri-fold" method (You may use www.calcchat.com to check your work):

Determining Quadrants In Exercises 13–18, determine the quadrant in which each angle lies. (The angle measure is given in radians.)

- **13.** (a) $\frac{\pi}{6}$ (b) $\frac{5\pi}{4}$ **14.** (a) $\frac{5\pi}{6}$ (b) $-\frac{5\pi}{3}$

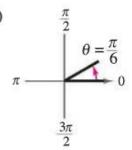
- **15.** (a) $\frac{7\pi}{4}$ (b) $\frac{11\pi}{4}$ **16.** (a) $-\frac{5\pi}{12}$ (b) $-\frac{13\pi}{9}$

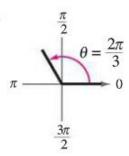
Sketching Angles In Exercises 19–24, sketch each angle in standard position.

- **19.** (a) $\frac{3\pi}{2}$ (b) $\frac{7\pi}{2}$ **20.** (a) $\frac{3\pi}{4}$ (b) $\frac{4\pi}{3}$
- **21.** (a) $-\frac{7\pi}{4}$ (b) $-\frac{5\pi}{2}$ **22.** (a) $\frac{11\pi}{6}$ (b) $-\frac{2\pi}{3}$

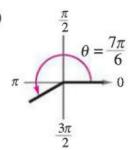
Finding Coterminal Angles In Exercises 25–28, determine two coterminal angles in radian measure (one positive and one negative) for each angle. (There are many correct answers).

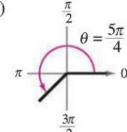






26. (a)





27. (a)
$$-\frac{9\pi}{4}$$

(b)
$$-\frac{2\pi}{15}$$

Determining Quadrants In Exercises 31–36, determine the quadrant in which each angle lies.

31. (a) 55°

(b) 215°

32. (a) 121°

(b) 181°

33. (a) 150°

(b) 282°

34. (a) 87.9°

- (b) 8.5°
- **35.** (a) $-132^{\circ} 50'$
- (b) $-336^{\circ}30'$
- **36.** (a) -245.25°
- (b) -12.35°

Sketching Angles In Exercises 37–42, sketch each angle in standard position.

- **37.** (a) 45°
- (b) 90°
- **38.** (a) 60° (b) 180°
- **39.** (a) 30° (b) 150° **40.** (a) -270° (b) -120°

- **41.** (a) 405°
- (b) 780° **42.** (a) -450° (b) -600°