## ***Magnitudes of Rotations and Measures of Arcs*** – *in book: Section 4.1 p. 222*

***If each angle has the given measure and is in standard position, determine the quadrant in which its terminal side lies.***

**1.** $\frac{7\pi}{12}$ **2.** $-\frac{2\pi}{3}$ **3.** $371°$ **4.** $\frac{14\pi}{5}$

**5.** $-156°$ **6.** $1000°$ **7.** $332°$ **8.** $-240°$

***Change each degree measure to radian measure in terms of π.***

**9.** $36°$ **10.** $-250°$ **11.** $-145°$ **12.** $6°$

**13.** $870°$ **14.** $18°$ **15.** $-820°$ **16.** $345°$

***Change each radian measure to degree measure.***

**17.** $-1$ **18.** $4\pi$ **19.** $-2.56$ **20.** $12.85$

**21.** $\frac{3\pi}{16}$ **22.** $-\frac{7\pi}{9}$ **23.** $\frac{13\pi}{30}$ **24.** $-\frac{17\pi}{3}$

***Write each angle in terms of number of revolutions.***

**25.** $-20°$ **26.** $160°$ **27.** $-545°$ **28.** $300°$

**29.** $\frac{10\pi}{3}$ **30.** $-\frac{5\pi}{8}$ **31.** $-\frac{\pi}{4}$ **32.** $-\frac{7\pi}{3}$