Radian Measure Worksheet

•1 Sketch each angle in standard position and determine what quadrant it lies in.

$\frac{5\pi}{4}$ $-\frac{2\pi}{3}$ $\frac{5\pi}{2}$ $\frac{11\pi}{6}$

•2 Write each angle in exact radian measure:

a. $30°$ b. $-20°$

c. $150°$ d. $-240°$

•3 Write each angle in degree measure:

a. $\frac{3\pi}{2}$ b. $\frac{7\pi}{6}$ c. $-\frac{7\pi}{12}$ d. $\frac{\pi}{9}$ e. $\frac{7\pi}{3}$ f. $-\frac{11\pi}{30}$

•4 Find one positive and one negative angle that are coterminal with an angle having the following measures.

a. $\frac{\pi}{6}$ b. $145°$ c. $\frac{2\pi}{3}$ d. $190°$ e. $-\frac{2\pi}{15}$

•5 Determine the quadrant where the following angle lies.

a. $\frac{3\pi}{4}$ b. -1 rad c. 4.5 rads d. $-125°$

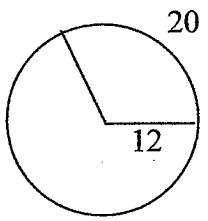
•6 Sketch the angle in standard position.

a. $-\frac{5\pi}{6}$

b. $545°$

•7 Find the angle in radians.

a.



b. r = 14 feet and s = 8 feet

•8 Find the arc length given: r = 12mm and $\theta = 330°$