MEMORIAL UNIVERSITY OF NEWFOUNDLAND
DEPARTMENT OF MATHEMATICS AND STATISTICS

SECTIONS 3.2 & 3.3 **Math 1090 Worksheet** FALL 2009

For practise only. Not to be submitted.

1. (a) Express $\dfrac{7\pi}{12}$ in degrees.

   (b) Express $225°$ in radians.

   (c) Express $-40°$ in radians.

2. Find the values of the six trigonometric functions for each of the following angles θ.

   (a) $\theta = \dfrac{17\pi}{6}$ 　　　　(b) $\theta = -\dfrac{3\pi}{4}$ 　　　　(c) $\theta = \dfrac{5\pi}{2}$

3. If θ is an angle such that $\cos(\theta) > 0$ and $\csc(\theta) < 0$, in which quadrant does θ lie?

4. If $\cos(\theta) = \dfrac{2}{5}$, find each of the following.

   (a) $\cos(\theta + \pi)$ 　　　　(b) $\cos(\theta + 2\pi)$

5. For each value of θ, find the other five trigonometric ratios.

   (a) $\sin(\theta) = \dfrac{8}{17}$, where $\dfrac{\pi}{2} < \theta < \pi$

   (b) $\cos(\theta) = -\dfrac{1}{3}$, where $\pi < \theta < \dfrac{3\pi}{2}$

   (c) $\sec(\theta) = \dfrac{5}{3}$, where θ is in the fourth quadrant