

**Writing Assignment 4: Trig Equations**

**Due: Friday, October 24, 2008** (40 pts)

Name \_\_\_\_\_

Section: 1:30 Row \_\_\_\_\_

- (4) 1. Find the angle  $\theta$ , in degrees, in the **third** quadrant whose cosine is -0.849.  
Your angle should be in the interval  $0^\circ \leq \theta < 360^\circ$ . Round to 1 decimal place.

2. Solve the equations on the interval  $0 \leq x < 2\pi$  algebraically, reporting **exact** values.

(6 each) Attach work.

a.  $2 \cos^2 x - \cos x - 1 = 0$

b.  $\cos 2x - 1 = \sin x$

c.  $\cos^2 x - 3 \sin x = 3$

d.  $2 \cos x + 4 = 4 \sin^2 x$

e.  $\sin 2x \sin x = \cos x$

f.  $\cos 2x + 1 = \cos x$