# Math 1060 Homework 3

Due: September 16th, 2014

## Problem 1

Staple your homework and write your name on it.

### Problem 2

**a** Plot  $y = -3\sin(2x)$  for x values between  $-2\pi$  and  $2\pi$ . Draw the coordinate axes and draw tick marks on the x axis every increment of  $\pi/2$ , i.e. at  $-2\pi$ ,  $-3\pi/2$ , etc.

**b** What is the amplitude of this function?

 ${\bf c}~$  What is the period of this function?

# Problem 3

**a** Plot  $y = \cos(\frac{1}{2}(x-\pi)) + 1$  for x values between  $-2\pi$  and  $2\pi$ . Draw the coordinate axes and draw tick marks on the x axis every increment of  $\pi/2$ , i.e. at  $-2\pi$ ,  $-3\pi/2$ , etc.

**b** What is the vertical shift of this function?

**c** What is the period of this function?

### Problem 4

**a** Plot tan(2x) for x values between  $-\pi$  and  $\pi$ . Draw the coordinate axes and draw tick marks on the x axis every increment of  $\pi/4$ .

**b** Plot  $\cot(2x)$  for x values between  $-\pi$  and  $\pi$ . Draw the coordinate axes and draw tick marks on the x axis every increment of  $\pi/4$ .

#### Problem 5

**a** Plot  $3 \sec(x)$  for x values between  $-2\pi$  and  $2\pi$ . Draw the coordinate axes and draw tick marks on the x axis every increment of  $\pi/2$ .

**b** Plot  $\csc(x - \pi)$  for x values between  $-\pi$  and  $\pi$ . Draw the coordinate axes and draw tick marks on the x axis every increment of  $\pi/2$ .

**c** What's the period of  $\csc(3x)$ ?