

## Written Assignment 2

- For each angle find the reference angle (express in degrees, and notice that angle will be between  $0^\circ$  and  $90^\circ$ ).
  - $-130^\circ$
  - $220^\circ$
  - $530^\circ$
- For each angle find the reference angle in the first quadrant (express in radians, and notice that angle will be between 0 and  $\frac{\pi}{2}$ ).
  - $\frac{4\pi}{7}$
  - $-\frac{3\pi}{5}$
  - $-\frac{13\pi}{6}$
- Find the exact value (not a decimal approximation) for the following:
  - $\sin(150^\circ)$
  - $\tan(-60^\circ)$
  - $\cos(-480^\circ)$
  - $\sec(300^\circ)$
  - $\sec\left(\frac{\pi}{6}\right)$
  - $\cot\left(\frac{11\pi}{6}\right)$
  - $\cos\left(\frac{19\pi}{6}\right)$
  - $\csc\left(\frac{4\pi}{3}\right)$
- Consider the function  $y = 5 \sin(3x)$ .
  - What is the amplitude and period of the function.
  - Graph the function over one period.
- Sketch the graph of each of the following for one period:
  - $y = 2 \sin(x)$
  - $y = 4 \sin(x/2)$
  - $y = 3 \cos(x)$
  - $y = \sin(x - \pi/4)$

6. Write a function (involving the sin function) that describes the following:

