

Bellwork Thursday, March 27, 2014

1. The amplitude of a periodic function is 6. The minimum value of the function is -3. Find the maximum value of the function.

2. Given  $\theta = 170^\circ$  which of the following angles is a coterminal angle to  $\theta$ ?  
a)  $2870^\circ$    b)  $3050^\circ$    c)  $-1640^\circ$    d)  $-2380^\circ$

3. Given  $\theta = 55^\circ$  which of the following angles is a coterminal angle to  $\theta$ ?  
a)  $-2145^\circ$    b)  $1485^\circ$    c)  $-1745^\circ$    d)  $1155^\circ$

4. Given the following:

$$\sin 30^\circ = \frac{1}{2} \quad \cos 30^\circ = \frac{\sqrt{3}}{2} \quad \sin 60^\circ = \frac{\sqrt{3}}{2} \quad \cos 60^\circ = \frac{1}{2}$$

Find the exact value of each.

- a)  $\cos 780^\circ$                       b)  $\sin -690^\circ$                       c)  $\tan 390^\circ$

5. A machine begins recording two periodic functions at the same time. The first has a period of 6 sec and the second has a period of 7 sec. After 20 seconds, the machine begins recording a third periodic function, which has a period of 8 sec. How many seconds after the machine began recording the original two functions will all three functions be at the beginning of their cycles?