

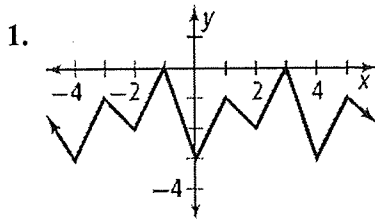
# Algebra 2 – Year 2

Review Sheet: Lessons 13.1-13.2

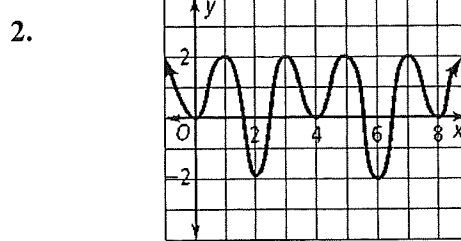
Name: \_\_\_\_\_

Date: \_\_\_\_\_ Hour: \_\_\_\_\_

The following 2 functions are periodic. State the length of the cycle.

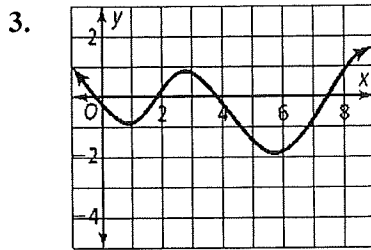


period = \_\_\_\_\_



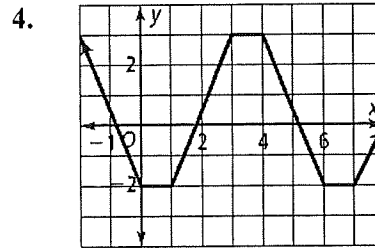
period = \_\_\_\_\_

Determine whether each function *is* or *is not* periodic. If it is, find the period.



periodic                      not periodic

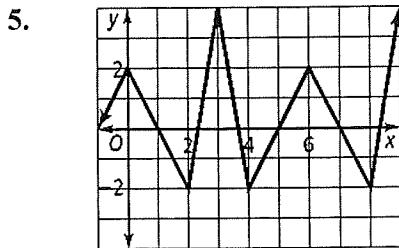
period = \_\_\_\_\_



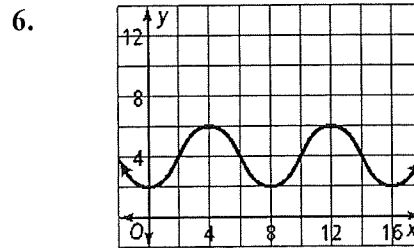
periodic                      not periodic

period = \_\_\_\_\_

Find the amplitude of each periodic function.



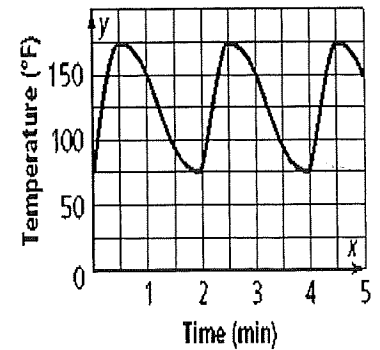
5. amplitude = \_\_\_\_\_



6. amplitude = \_\_\_\_\_

7. The graph at the right shows the temperature changes of a heating coil. Use the graph to find the amplitude and the period.

amplitude = \_\_\_\_\_                      period = \_\_\_\_\_



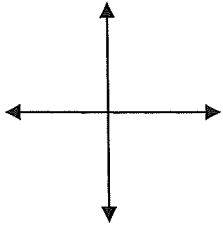
8. For each angle, find all coterminal angles such that  $-360^\circ < \theta < 360^\circ$ .

a.  $830^\circ$  \_\_\_\_\_

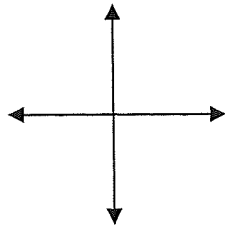
b.  $-244^\circ$  \_\_\_\_\_

9. Sketch each angle in standard position. Be neat and accurate!

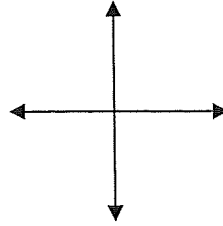
a.  $-245^\circ$



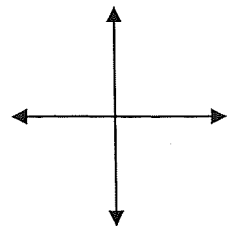
b.  $320^\circ$



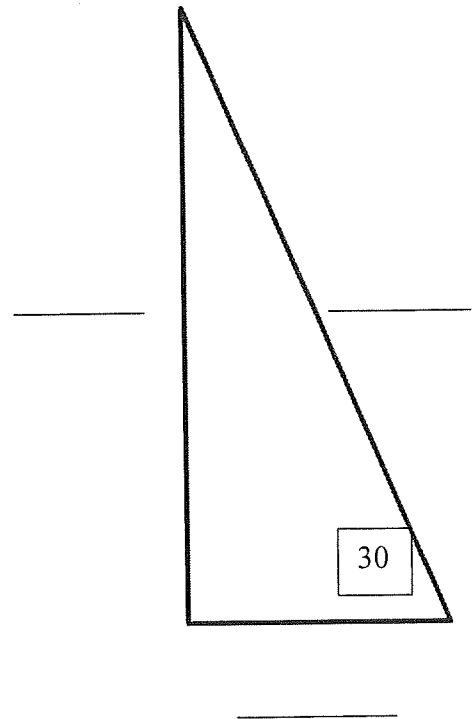
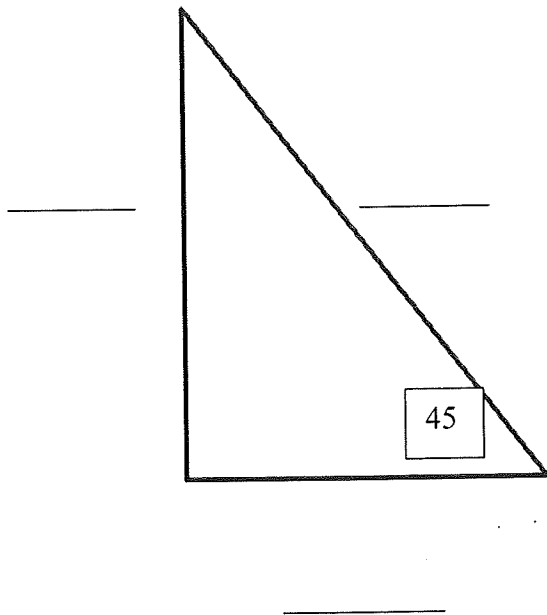
c.  $240^\circ$



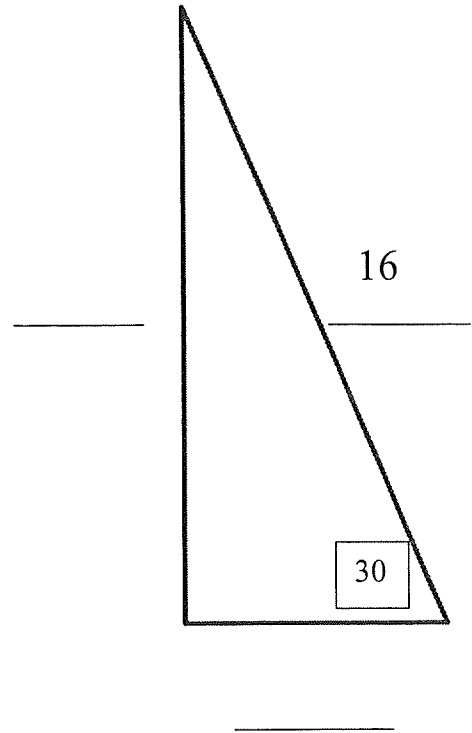
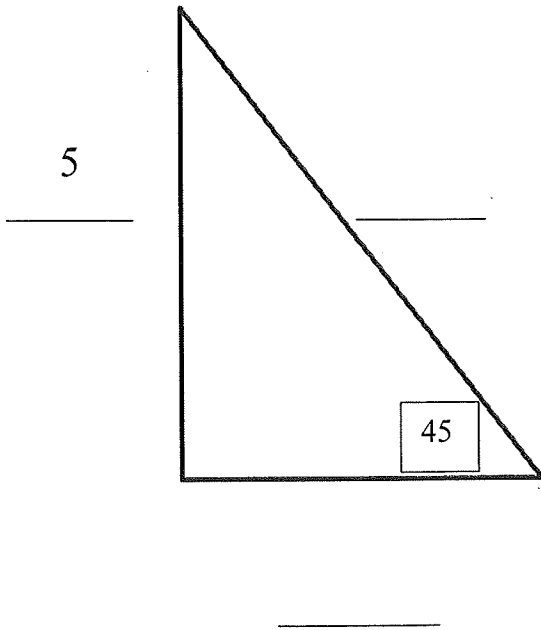
d.  $-270^\circ$



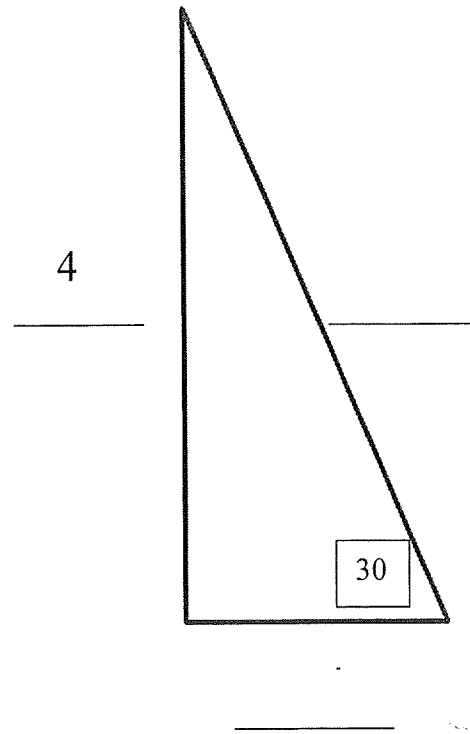
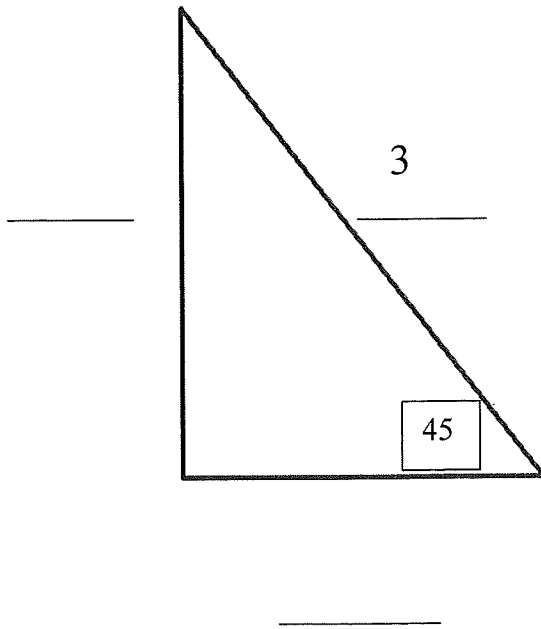
10. Label the sides of these triangles



10. Label the sides of these triangles



10. Label the sides of these triangles



**You must use the unit circle, and NOT a calculator to answer the following questions.**

11. Find each trigonometric function value. Give **exact** answers. (1.5 points each)

a.  $\cos 690^\circ =$  \_\_\_\_\_

b.  $\sin(-240^\circ) =$  \_\_\_\_\_

c.  $\sin 90^\circ =$  \_\_\_\_\_

d.  $\tan(-120^\circ) =$  \_\_\_\_\_

e.  $\sec 450^\circ =$  \_\_\_\_\_

f.  $\cot(-180^\circ) =$  \_\_\_\_\_

g.  $\sec(-300^\circ) =$  \_\_\_\_\_

h.  $\cos(210^\circ) =$  \_\_\_\_\_

i.  $\sin(315^\circ) =$  \_\_\_\_\_

j.  $\tan(135^\circ) =$  \_\_\_\_\_

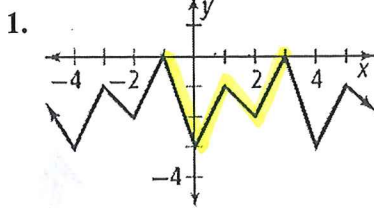
# Algebra 2 - Year 2

Review Sheet: Lessons 13.1-13.2

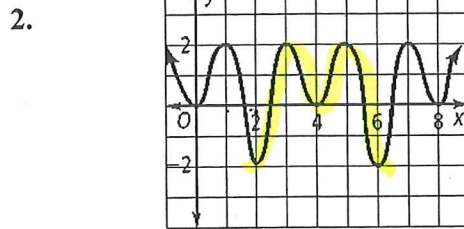
Name: \_\_\_\_\_

Date: \_\_\_\_\_ Hour: \_\_\_\_\_

The following 2 functions are periodic. State the length of the cycle.

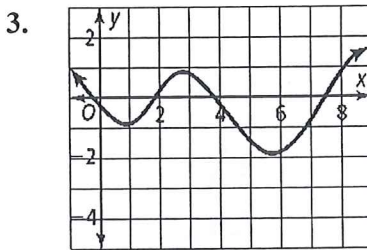


period = 4



period = 4

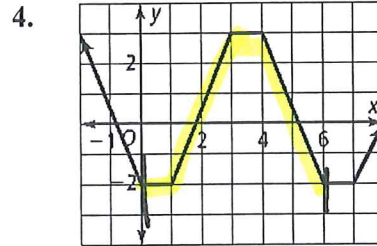
Determine whether each function is or is not periodic. If it is, find the period.



periodic

not periodic

period = 4

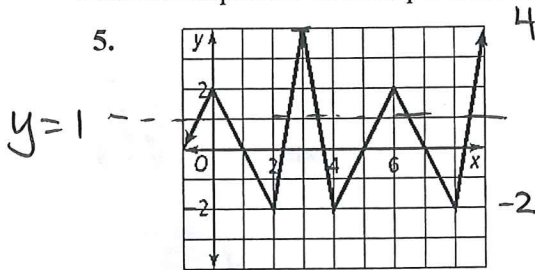


periodic

not periodic

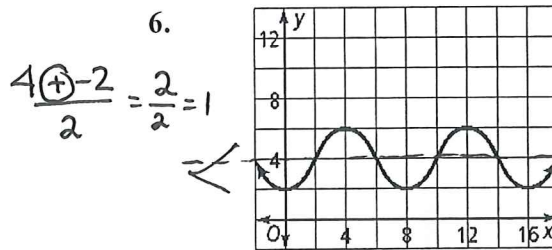
period = 6

Find the amplitude of each periodic function.



midline y = 1

5. amplitude = 3  $\leftarrow \frac{4 - (-2)}{2} = \frac{6}{2} = 3$



midline y = 4

6. amplitude = 2

$$\frac{4 + (-2)}{2} = \frac{2}{2} = 1$$

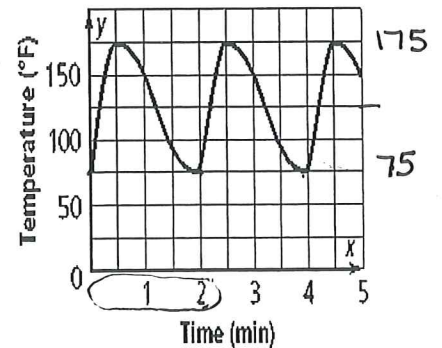
$$\frac{6 + 2}{2} = \frac{8}{2} = 4$$

$$\frac{6 - 2}{2} = \frac{4}{2} = 2$$

7. The graph at the right shows the temperature changes of a heating coil. Use the graph to find the amplitude and the period.

amplitude = 50

period = 2 min



$$\frac{175 - 75}{2}$$

mid

$$\frac{175 + 75}{2} = \frac{250}{2} = 125$$

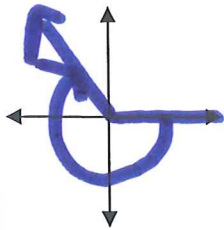
8. For each angle, find all coterminal angles such that  $-360^\circ < \theta < 360^\circ$ .

a.  $830^\circ$   
 $\underline{-360}$   
 $470$   
 $\underline{-360^\circ}$   
110°, -250°

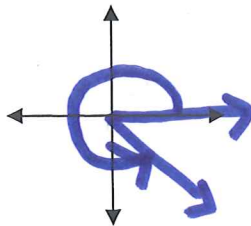
b.  $-244^\circ$   
 $\underline{-360}$   
116°

9. Sketch each angle in standard position. Be neat and accurate!

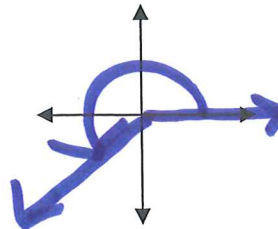
a.  $-245^\circ$



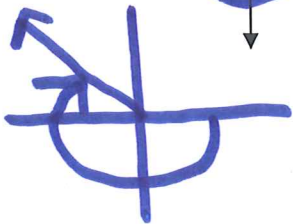
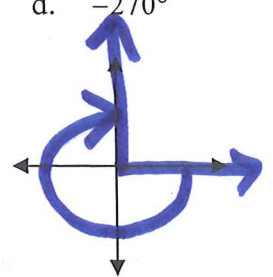
b.  $320^\circ$



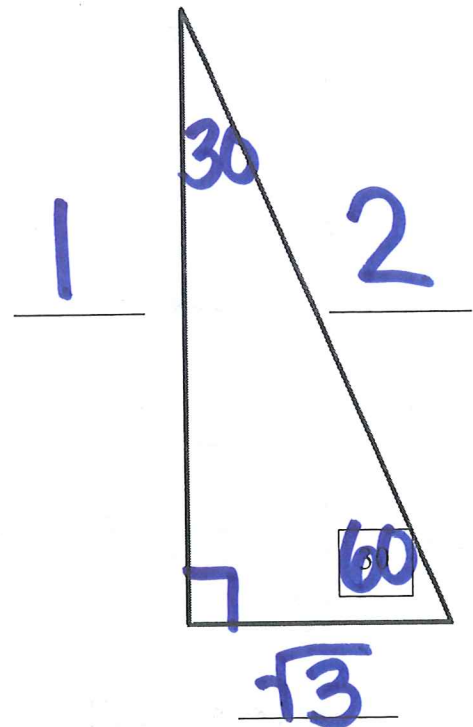
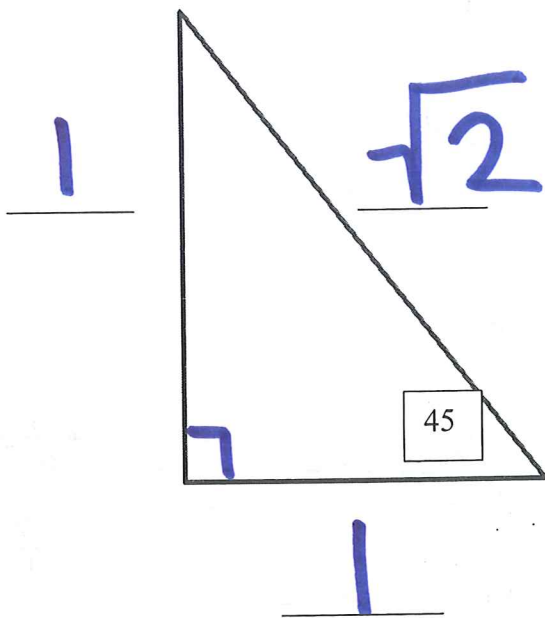
c.  $240^\circ$



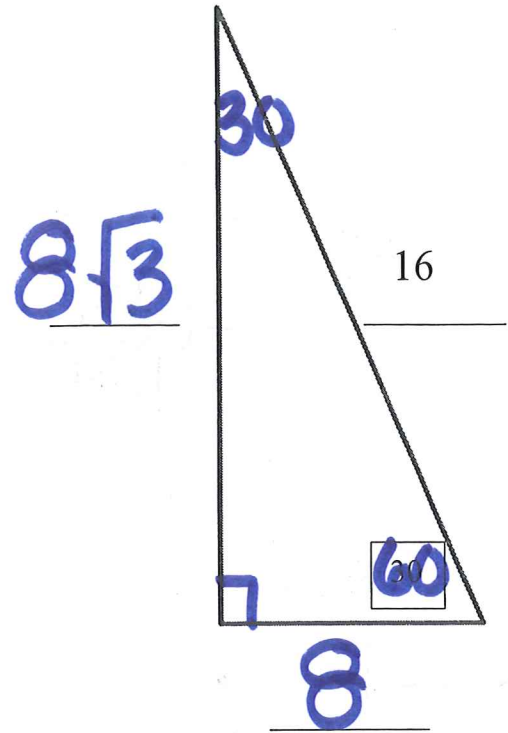
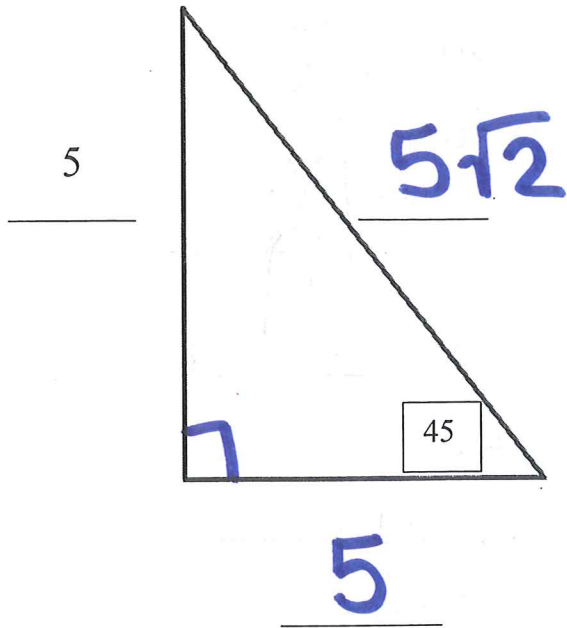
d.  $-270^\circ$



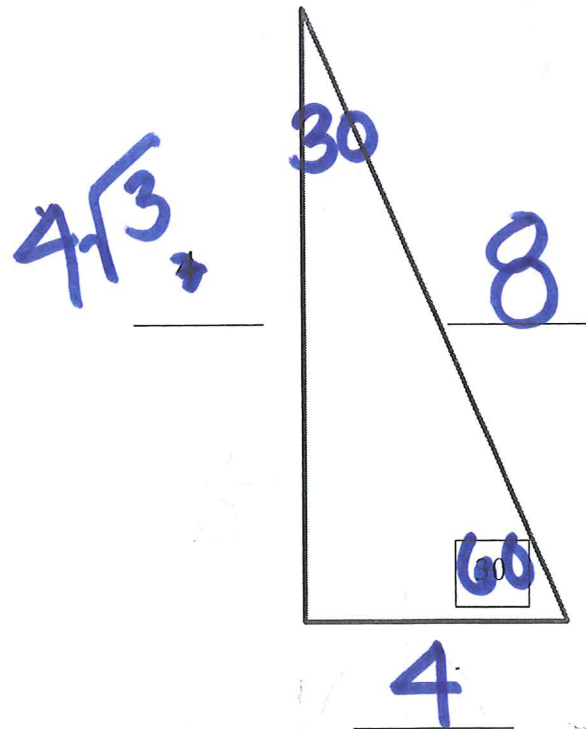
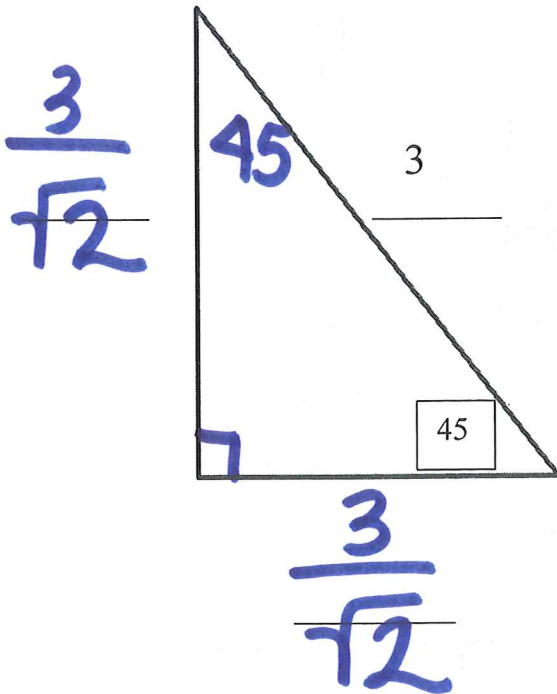
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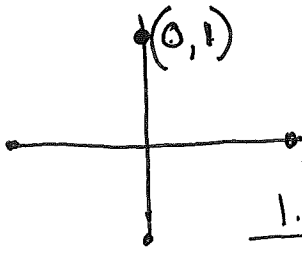
You must use the unit circle, and NOT a calculator to answer the following questions.

11. Find each trigonometric function value. Give **exact** answers. (1.5 points each)

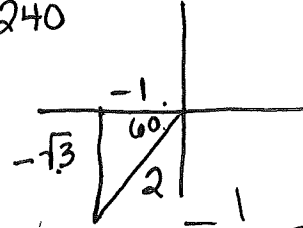
a.  $\cos 690^\circ = \frac{\sqrt{3}}{2}$   
 $-\frac{360}{330}$

b.  $\sin(-240^\circ) = \frac{\sqrt{3}}{2}$   
 $\sin 120$

c.  $\sin 90^\circ = \frac{y}{r} = \frac{1}{1}$

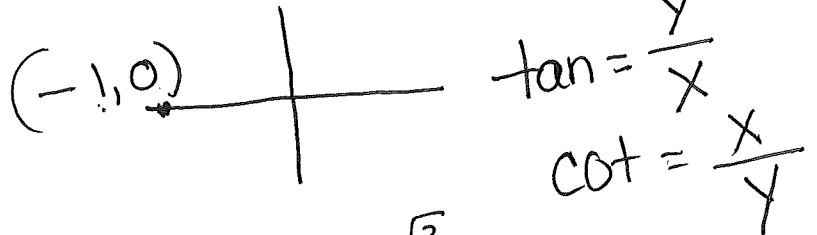
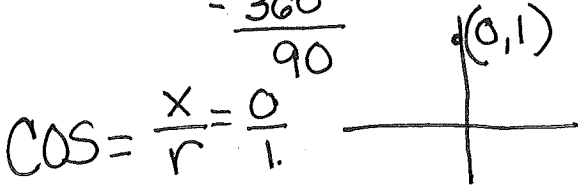


d.  $\tan(-120^\circ) = \frac{-\sqrt{3}}{-1} = \sqrt{3}$   
 $240$



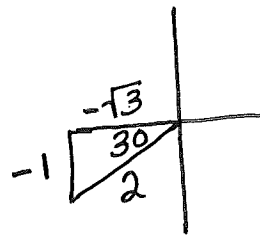
e.  $\sec 450^\circ = \frac{1}{0} = \text{undefined}$   
 $-\frac{360}{90}$

f.  $\cot(-180^\circ) = \frac{-1}{0} = \text{undefined}$



g.  $\sec(-300^\circ) =$  \_\_\_\_\_

h.  $\cos(210^\circ) = \frac{-\sqrt{3}}{2}$



i.  $\sin(315^\circ) = \frac{-1}{\sqrt{2}}$

j.  $\tan(135^\circ) = \frac{1}{-1}$

