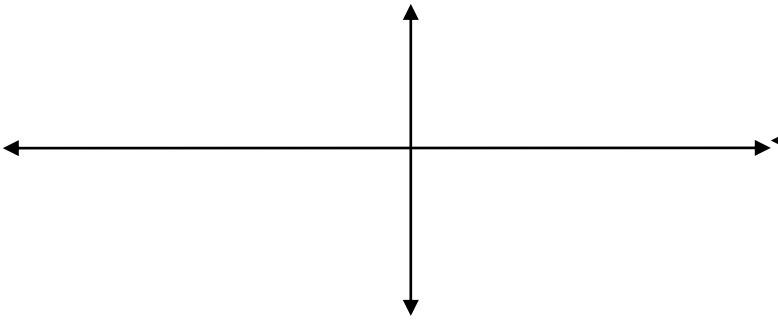
Pre-Calculus
Chapter 7 – REVIEW

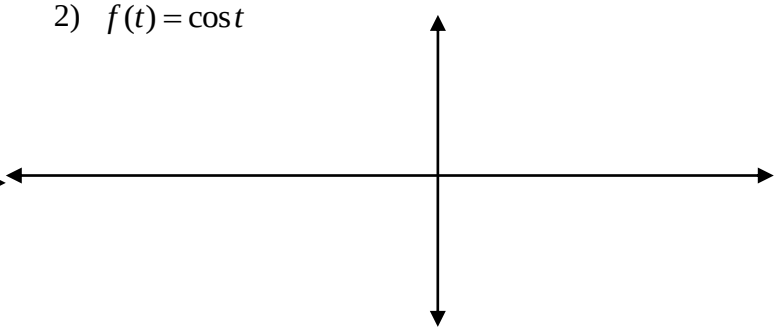
Name _____Period ____

Graph all six trigonometric functions form -2π to 2π. **Label the axes.**

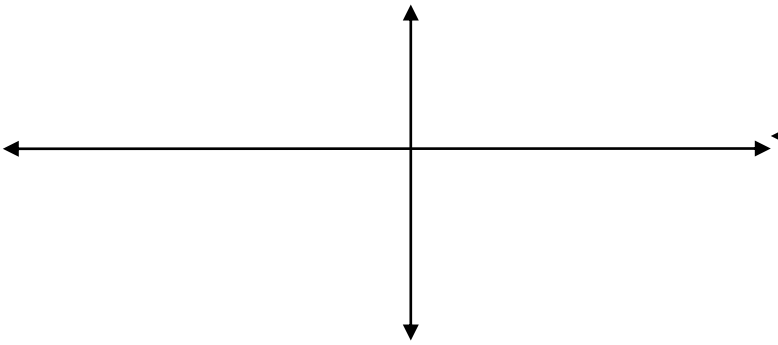
1) $f(t) = \sin t$



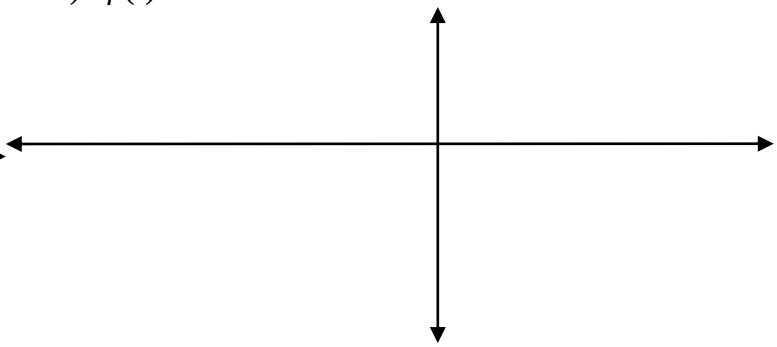
2) $f(t) = \cos t$



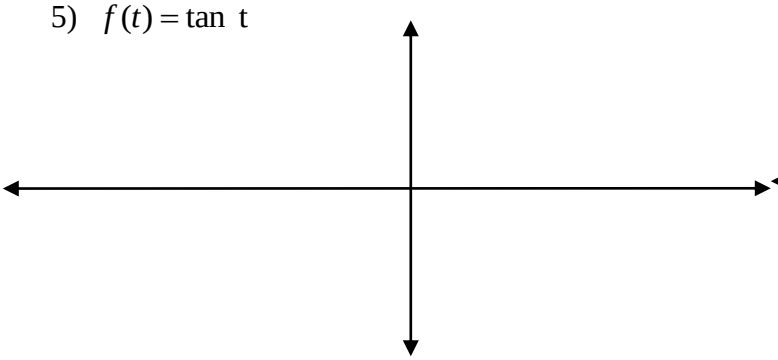
3) $f(t) = \csc\ t$



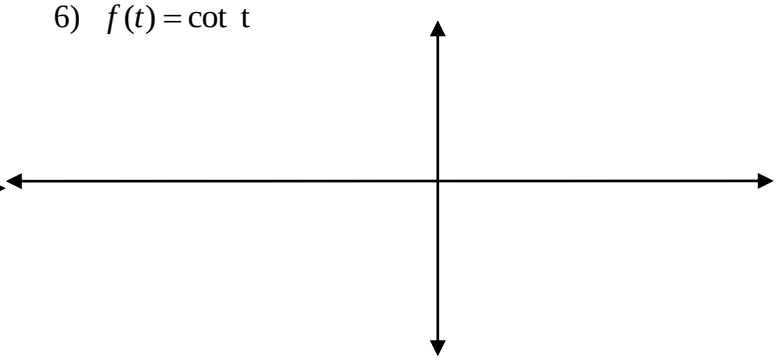
4) $f(t) = \sec t$



5) $f(t) = \tan\ t$



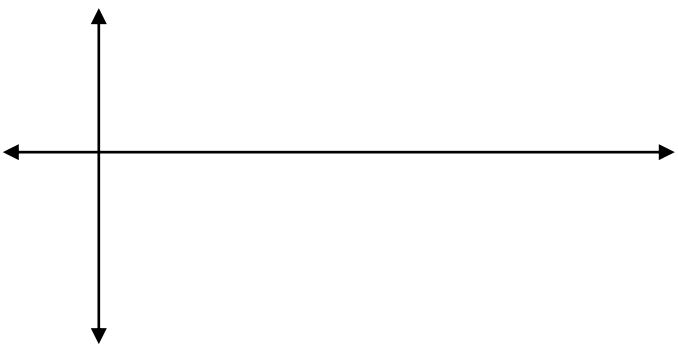
6) $f(t) = \cot\ t$



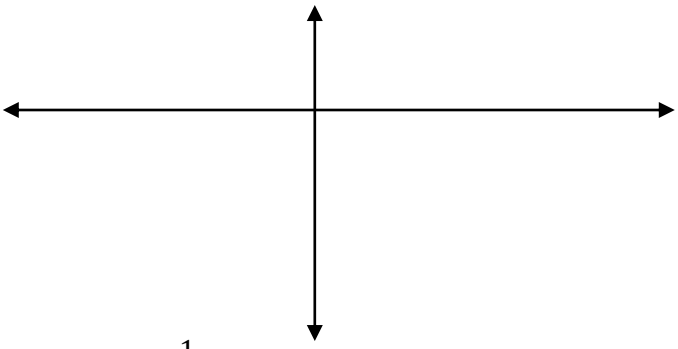
Graph Problems 7-12 in one fundament period. Label the axes.

7) $f(t) = \sin t + 2$

8) $f(t) = -3\cos t$



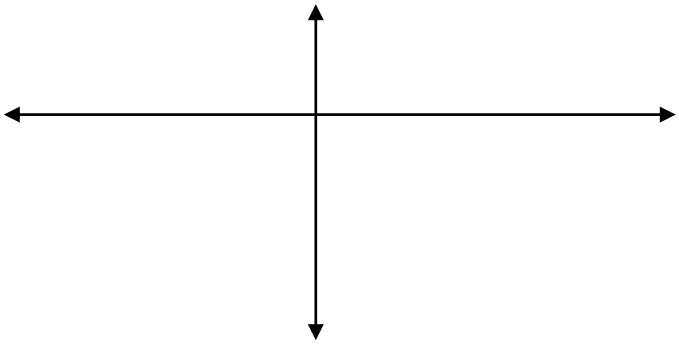
9) $f(t) = \tan t - 2$



10) $f(t) = -4\sin t + 3$

11) $f(t) = \frac{1}{2}\cos t + 2$

12) $f(t) = 2\tan t - 4$



Describe the transformations to the basic trigonometric graphs. Write one description per line.

13) $f(t) = -\frac{1}{3}\cos 4(t+\pi) - 1$

a. _____

b. _____

c. _____

d. _____

e. _____

14) $f(t) = 4\sin\left(-\frac{1}{3}\right)t + 2$

a. _____

b. _____

c. _____

d. _____

Write the equations in standard form the find the amplitude, period, vertical shift and phase shift.

15) $y = 5 + 2\sin\pi(t+1)$

amplitude:____ period:____ phase shift:_____ vertical shift:_____

16) $y - 1 = -4\cos(2t + \pi)$

amplitude:____ period:____ phase shift:_____ vertical shift:_____

17) $y + 1 = 4\tan\left(\frac{1}{5}t - \pi\right)$

amplitude:____ period:____ phase shift:_____ vertical shift:_____

Write an equation for the periodic function with the following changes:

18) $y = \sin t$ answer:_____

a: $\frac{1}{3}$ period: 3π phase shift: right $\frac{\pi}{2}$ vertical shift: down 3

19) $y = \cos t$ answer:_____

a: –2 period: $\frac{1}{3}$ phase shift: left 3 vertical shift: up 1

20) $y = \tan t$

answer:_____

a: 3 period: $\frac{\pi}{2}$

phase shift: left π vertical shift: down 1