

**Using radians, find the amplitude and period of each function. If the amplitude or period does not exist, write "DNE."**

1)  $y = 2 \sin 5x$                       Amplitude: \_\_\_\_\_                      Period: \_\_\_\_\_

2)  $f(t) = \frac{3}{4} \cos \frac{t}{2}$                       Amplitude: \_\_\_\_\_                      Period: \_\_\_\_\_

3)  $y = \frac{1}{2} \sin \frac{\pi}{3} x$                       Amplitude: \_\_\_\_\_                      Period: \_\_\_\_\_

4)  $y = \frac{1}{3} \tan x$                       Amplitude: \_\_\_\_\_                      Period: \_\_\_\_\_

5)  $f(x) = 3 \sin 10x$                       Amplitude: \_\_\_\_\_                      Period: \_\_\_\_\_

6)  $f(a) = \frac{5}{3} \cos \frac{4}{5} a$                       Amplitude: \_\_\_\_\_                      Period: \_\_\_\_\_

7)  $y = \frac{1}{4} \sin(2\pi)x$                       Amplitude: \_\_\_\_\_                      Period: \_\_\_\_\_

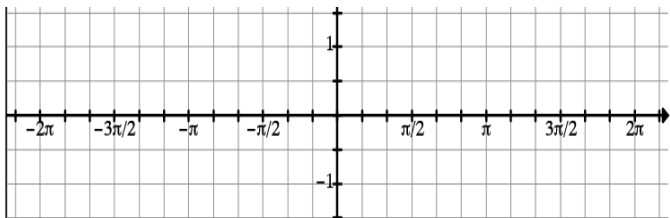
8)  $f(\theta) = -2 \tan 3x$                       Amplitude: \_\_\_\_\_                      Period: \_\_\_\_\_

9)  $y = \tan \frac{\pi}{4} x$                       Amplitude: \_\_\_\_\_                      Period: \_\_\_\_\_

10)  $y = 2 \sin \frac{1}{3} x$                       Amplitude: \_\_\_\_\_                      Period: \_\_\_\_\_

**Graph the trigonometric functions from  $[-2\pi, 2\pi]$ . Label all axes.**

11)  $f(x) = \sin x$

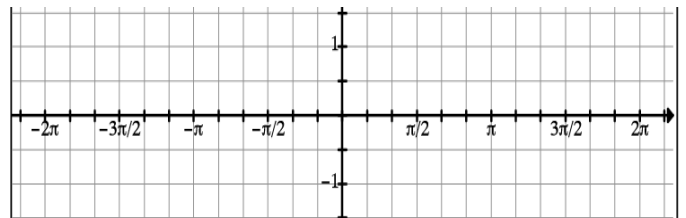


$x$	0	$\frac{\pi}{2}$	$\pi$	$\frac{3\pi}{2}$	$2\pi$
$f(x)$					

Amplitude: \_\_\_\_\_ Period: \_\_\_\_\_

Domain: \_\_\_\_\_ Range: \_\_\_\_\_

12)  $f(x) = \cos x$

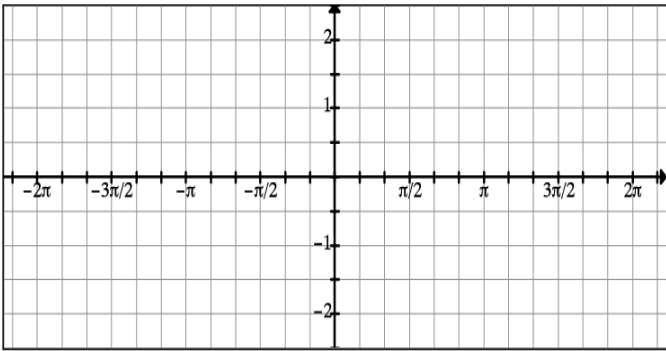


$x$	0	$\frac{\pi}{2}$	$\pi$	$\frac{3\pi}{2}$	$2\pi$
$f(x)$					

Amplitude: \_\_\_\_\_ Period: \_\_\_\_\_

Domain: \_\_\_\_\_ Range: \_\_\_\_\_

13)  $f(x) = \tan x$



$x$	$-\frac{\pi}{2}$	$-\frac{\pi}{4}$	$0$	$\frac{\pi}{4}$	$\frac{\pi}{2}$
$f(x)$					

Amplitude: \_\_\_\_\_ Period: \_\_\_\_\_

Domain: \_\_\_\_\_ Range: \_\_\_\_\_

**Using the given information and graphs, solve the following questions.**

14) Which trig graphs have domain  $(-\infty, \infty)$ ? \_\_\_\_\_

15) Which trig graphs have range  $(-\infty, \infty)$ ? \_\_\_\_\_

16) Which trig graphs have range  $[-1, 1]$ ? \_\_\_\_\_

17) Which trig graphs intercept the  $y$ -axis at the origin? \_\_\_\_\_

18) Which trig graphs intercept the  $y$ -axis at  $(0, 1)$ ? \_\_\_\_\_

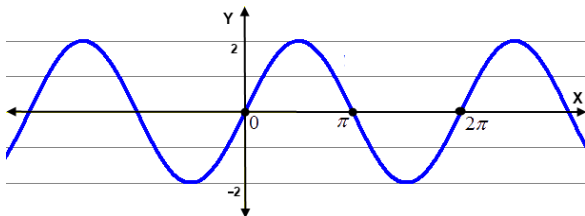
19) Which trig graphs are **EVEN** functions? \_\_\_\_\_

20) Which trig graphs are **ODD** functions? \_\_\_\_\_

21) Which trig graphs have a period length of  $2\pi$ ? \_\_\_\_\_

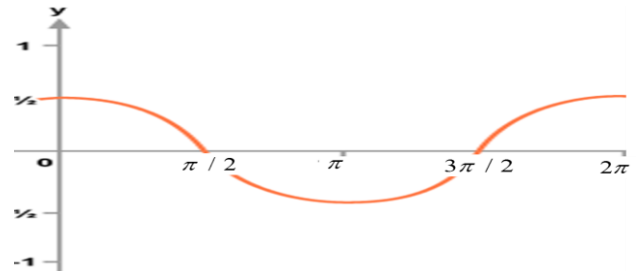
**Given the continuous graph, determine the equation**

22) Parent function: Sine graph



Equation: \_\_\_\_\_

23) Parent Function: Cosine graph



Equation: \_\_\_\_\_