

Name:

Period:

Date:

Practice Worksheet: Graphs of Trig Functions

True or False

1] _____

Changing the period of a sine function changes its domain.

2] _____

Changing the vertical displacement of a cosecant function changes its range.

3] _____

Changing the phase shift of a tangent function changes its domain.

4] _____

Changing the vertical stretch of a cotangent function changes its domain.

Analyze the equation to determine the features of the graph of each function.

5] $y = 3 \sin 2x - 4$ amplitude: period: phase shift: vertical displacement: reflection:	6] $y = -4 \cos \frac{1}{3}x$ amplitude: period: phase shift: vertical displacement: reflection:	7] $y = 5 \csc \left(x - \frac{\pi}{3}\right) + 2$ vertical stretch/shrink: phase shift: period: vertical displacement: reflection:
8] $y = 7 \sec 4 \left(x + \frac{\pi}{4}\right) - 1$ vertical stretch/shrink: phase shift: period: vertical displacement: reflection:	9] $y = 4 \tan \frac{2}{3}x + 6$ vertical stretch/shrink: phase shift: period: vertical displacement: reflection:	10] $y = \frac{1}{2} \cot(-x) + 1$ vertical stretch/shrink: phase shift: period: vertical displacement: reflection:

Fill in the blanks to complete the table.

	Function	Vertical Stretch/Shrink	Period	Phase Shift	Vertical Displacement	Equation
11]			4π			$y = 2 \cos \frac{1}{2} \left(x + \frac{3\pi}{2}\right) + 4$
12]	sine	5	$\frac{2\pi}{3}$	none	up 2	
13]						$y = 15 \tan \frac{1}{4} \left(x - \frac{\pi}{2}\right) - 10$
14]			$\frac{\pi}{3}$			$y = \frac{1}{3} \sec 6x$
15]						$y = 5 \csc \left(x + \frac{\pi}{6}\right) + 1$
16]	cotangent	none	3π	right $\frac{\pi}{8}$	none	

Identify the features of the graph, then sketch the graph NEATLY using PENCIL.

17] $y = \sin\left(x - \frac{\pi}{2}\right) + 1$

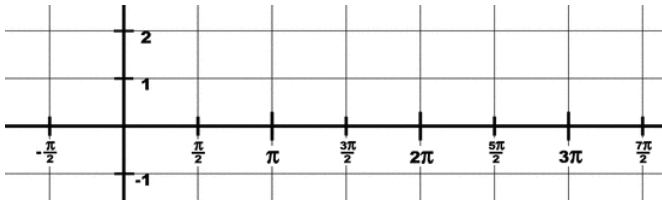
Reflection:

Amplitude:

Period:

Phase shift:

Vertical displacement:



18] $y = \frac{1}{2} \cos(x + \pi)$

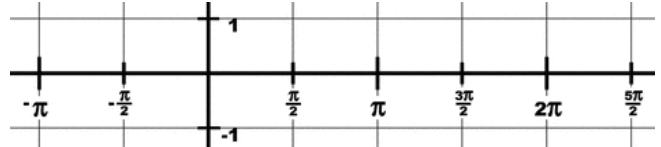
Reflection:

Amplitude:

Period:

Phase shift:

Vertical displacement:



19] $y = 3 \sin 2x$

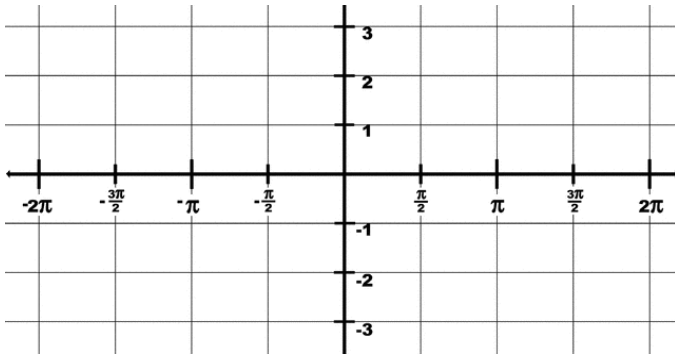
Reflection:

Amplitude:

Period:

Phase shift:

Vertical displacement:



20] $y = -\csc x + 1$

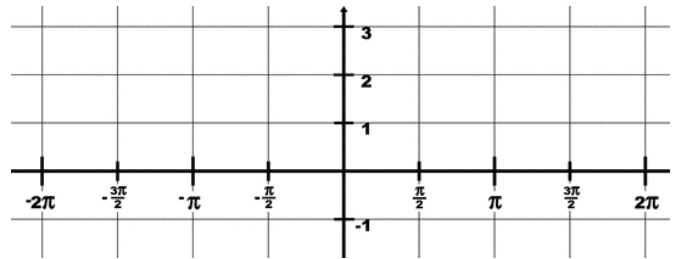
Reflection:

Vertical Stretch/Shrink:

Period:

Phase shift:

Vertical displacement:



21] $y = \cos 2x - 2$

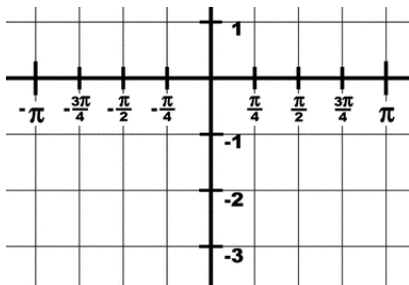
Reflection:

Amplitude:

Period:

Phase shift:

Vertical displacement:



22] $y = -\tan \frac{1}{2} x$

Reflection:

Vertical Stretch/Shrink:

Period:

Phase shift:

Vertical displacement:

