

East Los Angeles College
Department of Mathematics
Math 241
Test 1

The computations for this exam is to be done without a calculator. You must show all work for credit.

Determine the exact vale of the following trigonometric functions.

1. $\sin(60^\circ)$
2. $\cos(300^\circ)$
3. $\tan(90^\circ)$
4. $\sec(225^\circ)$
5. $\sin(-240^\circ)$
6. $\cos(-120^\circ)$
7. $\tan(-135^\circ)$
8. $\cot(-270^\circ)$

Convert the following angles in degrees to radians.

9. 30°
10. 240°
11. 225°
12. 300°

Convert the following angles in radians to degrees.

13. $\frac{\pi}{4}$
14. $\frac{5\pi}{3}$
15. $\frac{5\pi}{6}$
16. 3π

Determine the values of the remaining trigonometric rations.

17. $\sin(t) = \frac{1}{2}$ and $\tan(t) < 0$

18. $\sin(t) = -\frac{5}{13}$ and $\cos(t) = \frac{12}{13}$

Determine the amplitude, period, interval of one cycle, and sketch the following trigonometric function.

19. $y = 6\sin\left(\frac{x}{3}\right)$

20. $y = -\cos(2\pi x)$

Determine the amplitude, period, phase shift, interval of one cycle, and sketch the following trigonometric function.

21. $y = -\frac{3}{4}\cos\left(2x - \frac{\pi}{4}\right)$

22. What is your name?

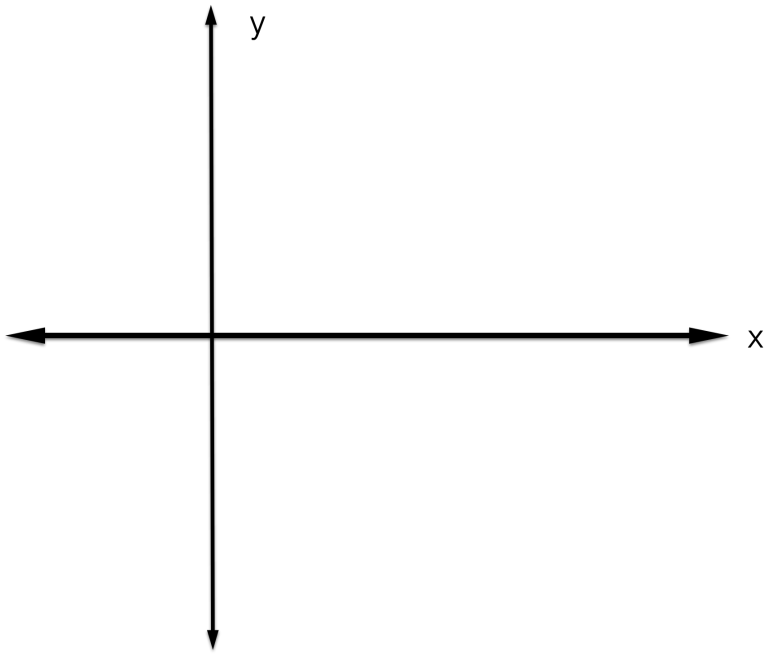
Write your answers on the answer sheet below, or create an answer sheet with your own paper and fill it in with your answers. This will be uploaded with your work as well.

Answer Sheet

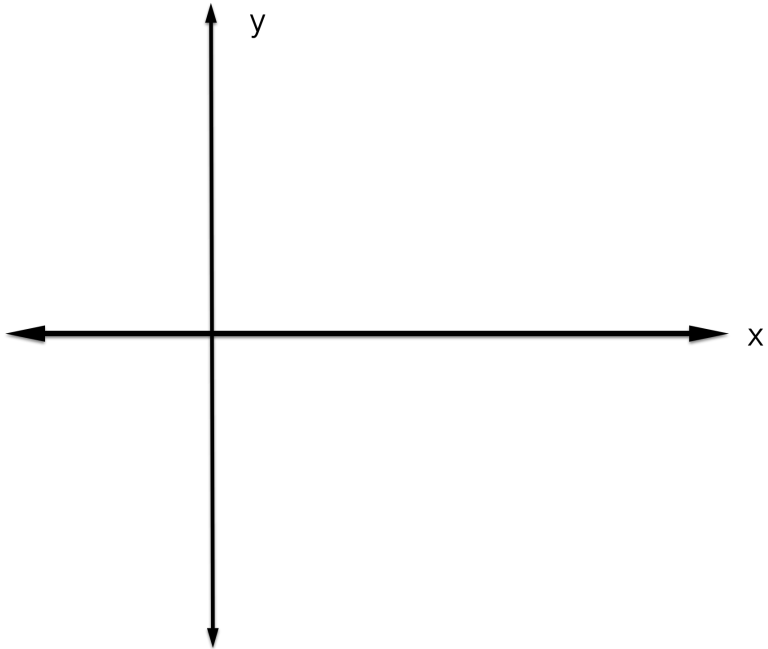
1			csc(t)=
2			tan(t)=
3			cot(t)=
4			sec(t)=
5			csc(t)=
6		19	amp=
7			period=
8			Interval=
9			Use Graph Paper
10		20	amp=
11			period=
12			Interval=
13			Use Graph Paper
14		21	amp=
15			period=
16			Phase Shift=
17	tan(t)=		Interval=
	cot(t)=		Use Graph Paper
	sec(t)=	22	

Graph Paper

19.



21.



21.

