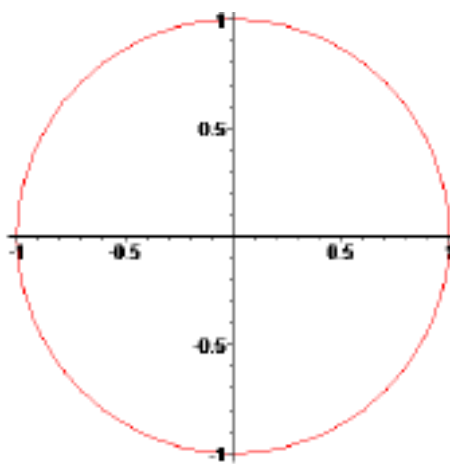
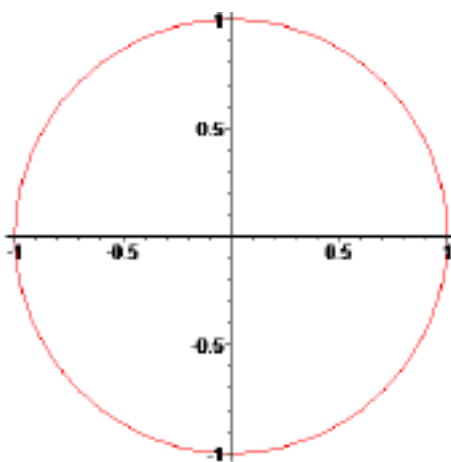
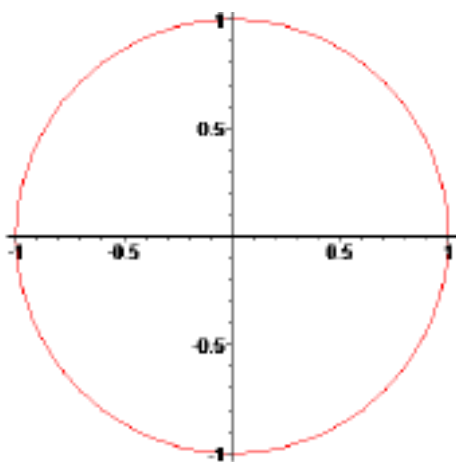


Name:

QUIZ – MATH GRADE 10

1. (15%, 5% for each **perfect** row) Use the circles below to show work.

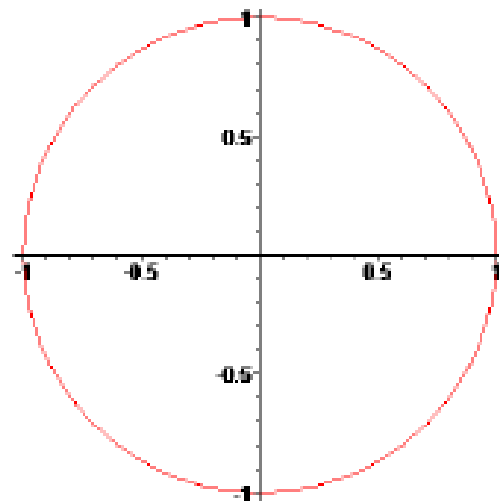
Angle in degrees	Angle in Radians	Sin(x)	Cos(x)	Tan(x)	Cot(x)	Sec(x)	Csc(x)
270°							
315°							
		Negative _____	0.5				



2. (12%) Find (5%) and Sketch (1%) on the unit circle:

a. (6%) $\tan\left(\frac{2\pi}{3}\right) =$

b. (6%) $\sin\left(\frac{7\pi}{4}\right) =$



2. (15%) In each one of the cases Find (4%) and sketch (1%) on the unit circle:

a. (5%) $\cos(130^\circ) = \cos(\text{_____})$

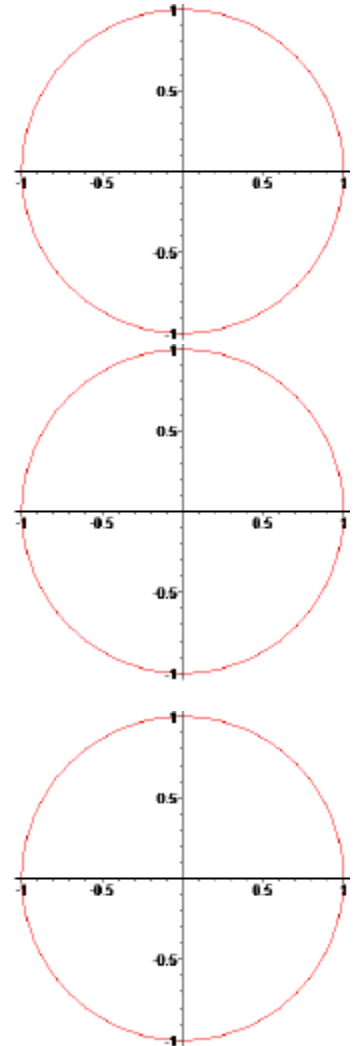
Angle found should be within $[0, 360^\circ]$

b. (5%) $\sin(265^\circ) = \sin(\text{_____})$

Angle found should be within $[0, 360^\circ]$

c. (5%) $\tan(25^\circ) = \tan(\text{_____})$

Angle found should be within $[0, 360^\circ]$



3. (18%) Given that $\sin(x) = -\frac{3}{8}$

a. (4%) The angle x can be in the _____ or _____ Quadrants.

b. (8%) $\cos(x) =$

c. (6%) $\sin(2x) =$

4. (15%) Given that $\tan(x) = -9$, $0 < x < \pi$

a. (5%) x is in the _____ Quadrant.

b. (10%) $\cos(x) =$

5. (4%) The $\sin(x)$ function relates 2 variables. Write them down:

_____ \rightarrow _____
Independent Dependent

6. (11%) The Beam produced by a certain antenna forms a sector of a circle with an angle of 0.5 radians. It can emit to a distance of 10 km.

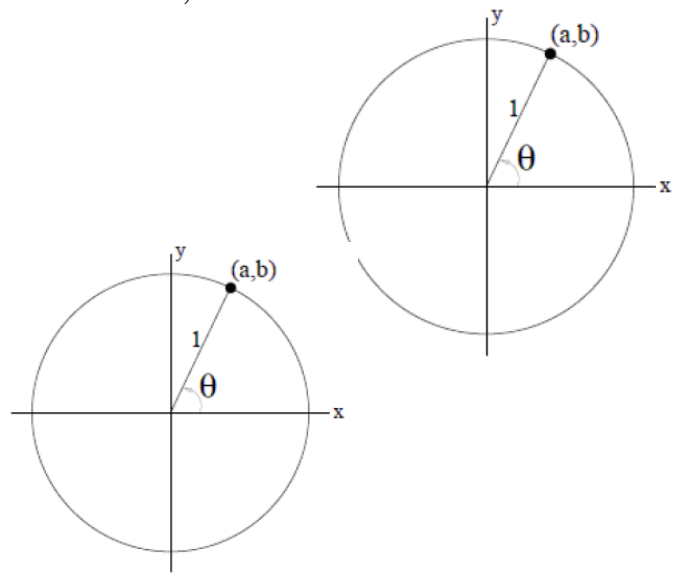
a. (4%) Find the Area of emission of the antenna.

b. (7%) A second antenna has the same area of emission but can emit to a distance twice as large. Find its angle of emission.

7. (10%) Given that, answer in terms of a and b ,
show work on the circle

a. $\tan(180^\circ - \theta) =$

b. $\cos(90^\circ + \theta) =$



BONUS (10%)

Find the perimeter of an isosceles triangle whose base is half of its side and its area is 20 cm^2