Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Find the reference angle and 3 coterminal angles (with at least one negative) for 210° .
2. Solve for the sector area. Assume the angle drawn is a central angle.

120°

4in.

8in.

1. 
2. 
3. 
4. 
5. 
6. 
7. Graph one period of . Additionally, state the domain, range, period, amplitude, vertical shift, and horizontal shift of the ENTIRE function.

Domain:

Range:

Period:

Amplitude:

Vertical Shift:

Horizontal Shift:

1. Graph one period of . Additionally, state the domain, range, location of vertical asymptotes, period, vertical stretch, vertical shift, and horizontal shift of the ENTIRE function.

Domain:

Range:

VA:

Period:

Vertical Stretch:

Vertical Shift:

Horizontal Shift:

1. Graph one period of  . Additionally, state the domain, range, location of vertical asymptotes, period, vertical stretch, vertical shift, and horizontal shift of the function.

Domain:

Range:

VA:

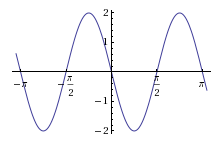
Period:

Vertical Stretch:

Vertical Shift:

Horizontal Shift:

1. Graph . State its domain and range.
2. Write the equation of the graph below.



For #14 and 15, write your answer in terms of radians.

1. 
2. 
3. =
4. A flagpole is 30 feet tall and cast a 5 foot shadow on the ground. What is the angle of elevation from the end of the shadow to the top of the flagpole?
5. Find θ where cos θ= -7/12 and θ ϵ Quadrant III.

9

1. Solve for θ in the triangle to the right.

θ

12

Find all the missing parts of the triangle. Round all angles to the nearest hundredth of a degree and all sides to the hundredth of a unit

1. B = 52.1°

C = 114.8°

b = 37.91cm

1. B = 39°

b = 4.2m

a = 24.1m

1. Find the measure of angle A, B, and C when a =2km, b=3km, and c=4km.
2. Bonus 1: Lookout station B is located 5 mi due east of station A. The bearing of a fire from A is S 10°W and the bearing from B is S 40°W. Determine the distance from the fire to B (to the nearest tenth of a mile).