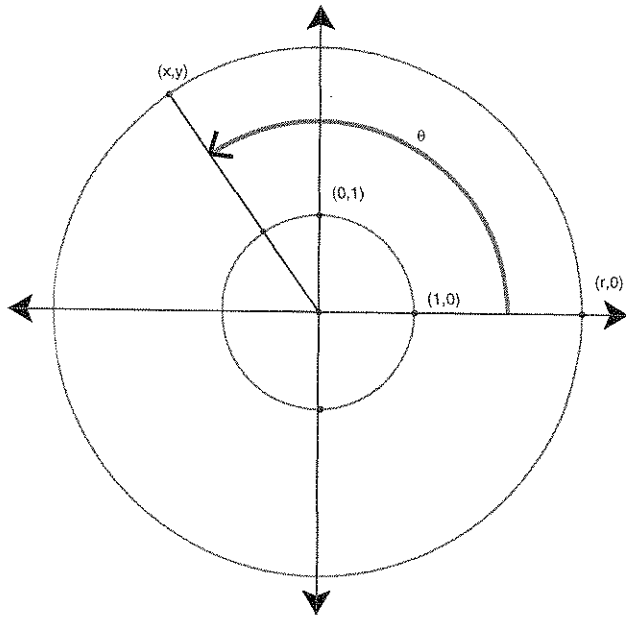


1. Complete the following statement:



r = radius of a circle with a center at $(0,0)$
 θ = degree of rotation, centered at $(0,0)$, from the positive x axis to the radius
 Any point (x,y) can be thought of as
 (_____)

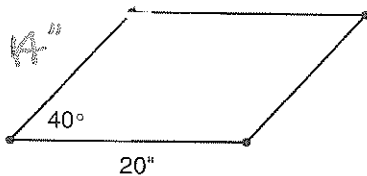
2. In $\triangle BAC$, $\angle C$ is a right angle and $\sin \angle B = \frac{15}{17}$

a. Find the $\cos \angle B$

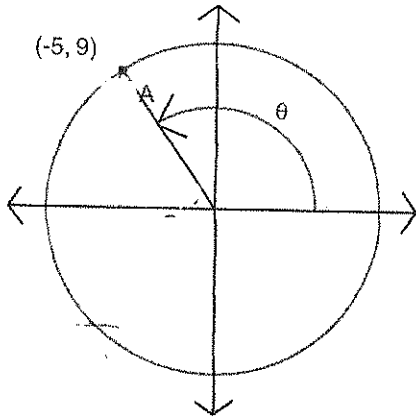
b. Find the $\tan \angle A$

3. The equation of a line is $y = \frac{-8}{11}x + 4$, What is the angle between the line and the x - axis?

4. ABCD is a parallelogram. What is the area of parallelogram ABCD?



5. Find the values of $\sin \theta$, $\cos \theta$ and $\tan \theta$



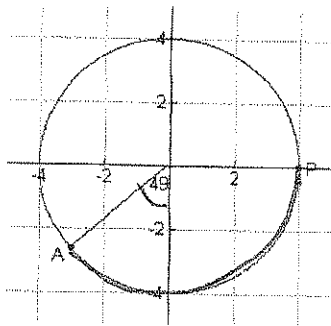
$\sin \theta =$

$\cos \theta =$

$\tan \theta =$

Find the degrees in θ (You should be able to check your answers above to see that all three are reasonable!)

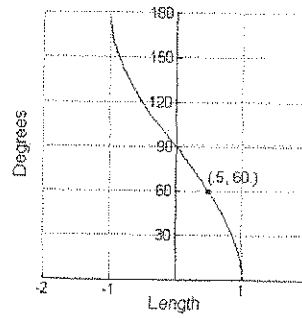
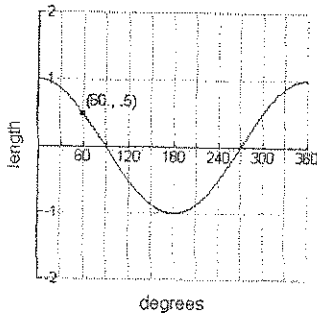
6. Find the area of a regular 30 gon with sides of length 14 cm.



7. a. Find the length of arc AP

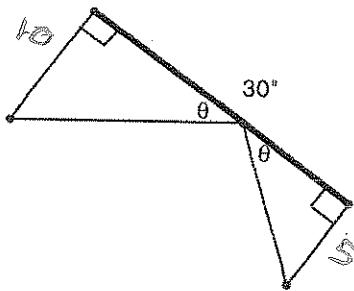
b. Find the area of the sector bounded by arc AP

8. Give the domain and range of these functions

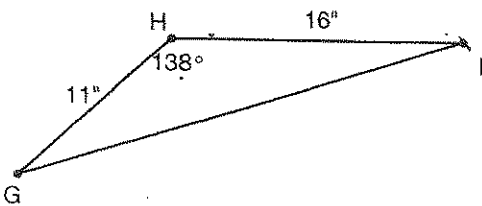


9. A rhombus has diagonals of lengths 13 cm and 21 cm. find the four angle measures of the rhombus.

10. Find the measure of theta θ . Be sure to justify your solution!



11. Find the area



12. $\triangle RTS \sim \triangle MUN$ and if the $\cos \angle T = .6$ and the $\cos \angle N = .8$, what is the $\cos \angle U$? Explain your reasoning.

13. Why is this statement impossible? **The $\sin \theta = 2$** Explain your reasoning.