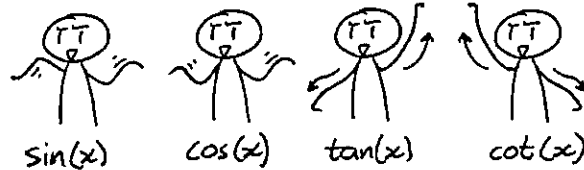


Name: _____

Hour: _____

Unit M: Trigonometry

Geometry, 2nd Semester
Beautiful Dance Moves

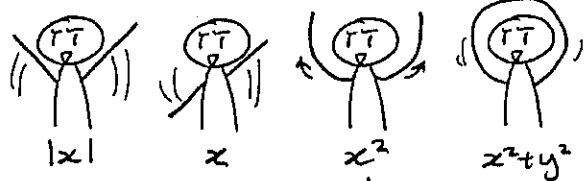


$\sin(x)$

$\cos(x)$

$\tan(x)$

$\cot(x)$

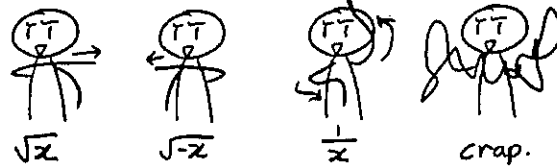


$|x|$

x

x^2

x^2+y^2



\sqrt{x}

$\sqrt{-x}$

$\frac{1}{x}$

crap.

Warm-Ups

Date: _____

Date: _____

Date: _____

Date: _____

Date: _____

Date: _____

Date: _____

Date: _____

Warm-Ups

Date: _____

Date: _____

Date: _____

Date: _____

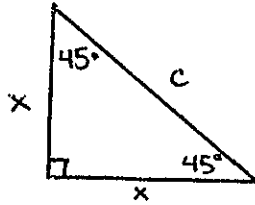
Date: _____

Date: _____

Date: _____

Date: _____

Lesson 13-5: Special Right Triangles



$$c^2 = x^2 + x^2$$

$$c^2 = 2x^2$$

$$c = \sqrt{2x^2}$$

$$c = x\sqrt{2}$$

Vocabulary

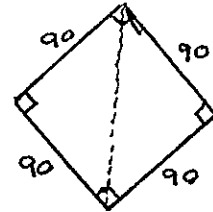
Isosceles Right Triangle Theorem: _____

30-60-90 Triangle Theorem: _____

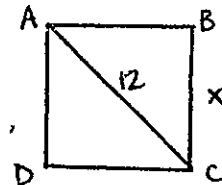
Picture:

Practice

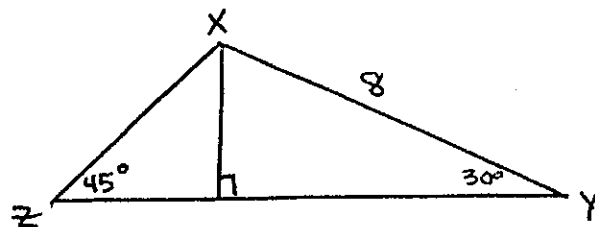
1. How far is it from home to second base?



2. What is the exact value for the length of a side of the square?



3. Find YZ and XZ.



Lesson 13-6 & 13-7: SOH-CAH-TOA

NOTE: Calculators must be in "degree mode".

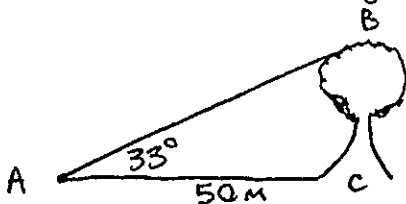
Vocabulary

Sine	Cosine	Tangent
Abbreviation	Abbreviation	Abbreviation
Symbols	Symbols	Symbols
Words	Words	Words
Picture	Picture	Picture

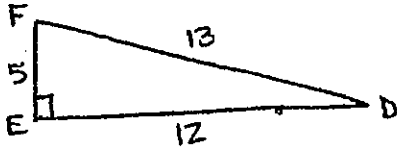
use the inverse of each, \sin^{-1} , \cos^{-1} , and \tan^{-1} to find missing angle measures

Practice

1. Find the $\tan 26^\circ$.
2. At a location 50m from the base of a tree, the angle of elevation of the tree top is 33° . Determine the height of the tree to the nearest meter.

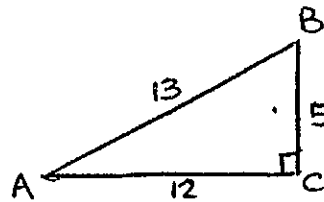


3. In the right triangle, find $m\angle D$.

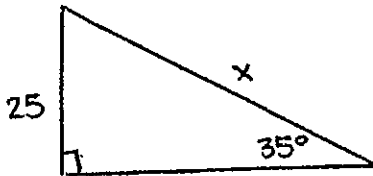


4. Find each ratio for the triangle at the right.

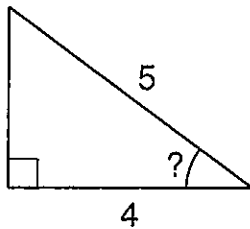
- a. $\sin A =$
- b. $\cos A =$
- c. $\sin B =$
- d. $\cos B =$



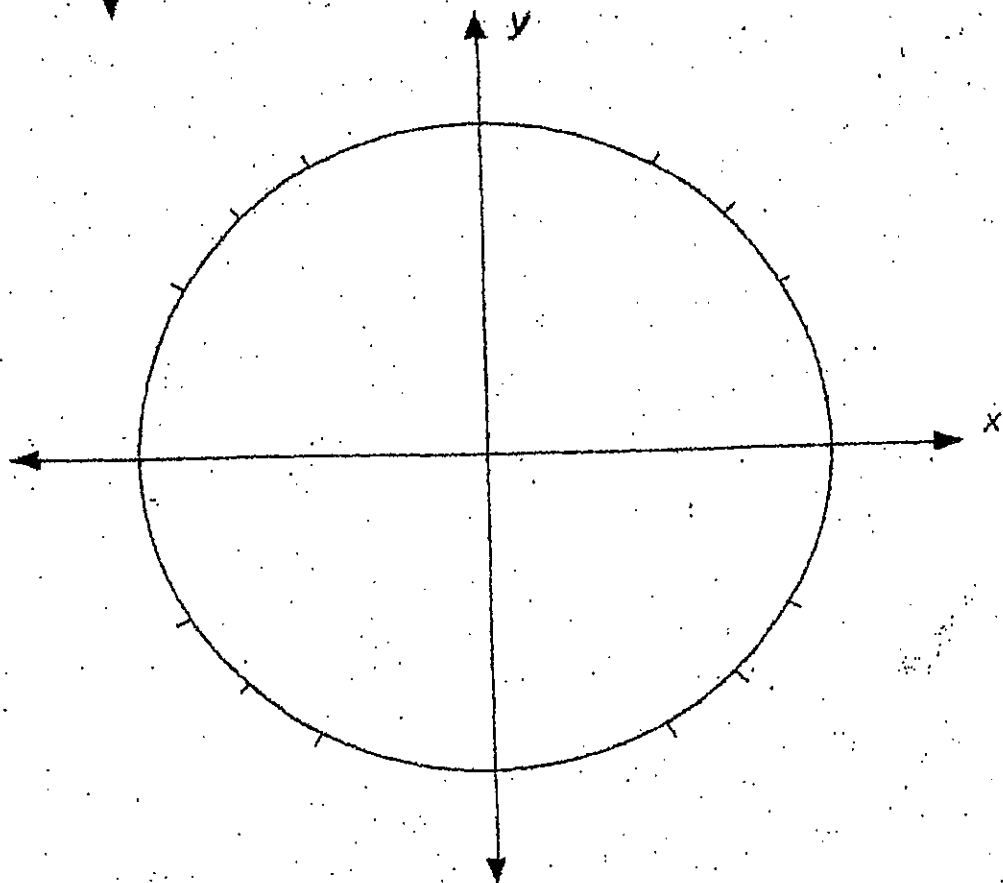
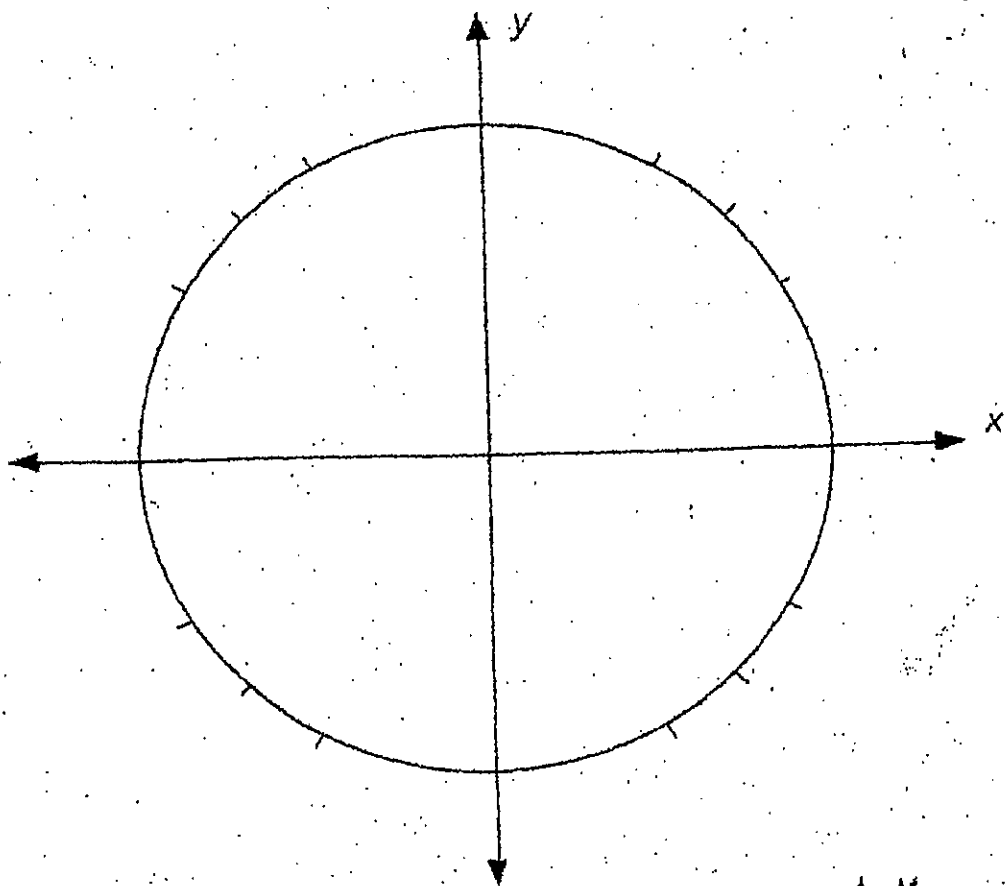
5. Find the missing side length, x , for the triangle below.



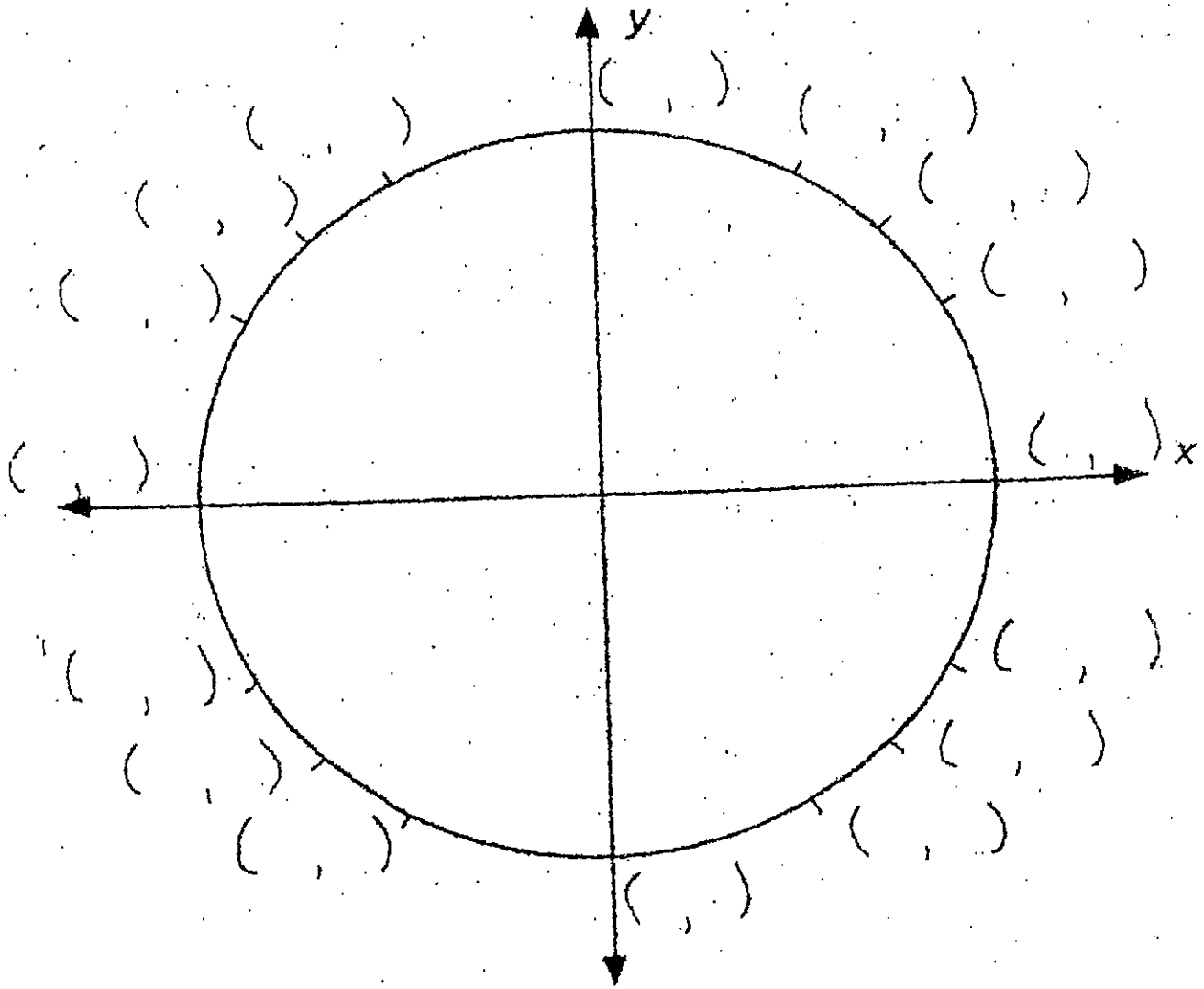
6. Find the missing angle below.



Unit Circle Notes



Unit Circle Notes (Continued...)



Practice

1. $\sin 30^\circ$

2. $\cos 210^\circ$

3. $\cos \frac{3\pi}{4}$

4. $\sin \frac{11\pi}{6}$

5. $\tan 30^\circ$

6. $\tan \frac{\pi}{3}$

7. $\sin(-90^\circ)$

8. $\cos(-150^\circ)$

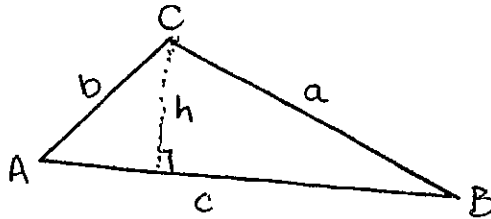
Law of Sines & Law of Cosines

Vocabulary

Law of Sines: _____

Law of Cosines: _____

How in the world did they figure that out?!? Check this out...



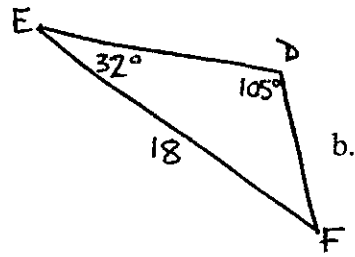
- 1) $\sin A =$ _____ and $\sin B =$ _____
- 2) Solve for h in the above equations.
- 3) Since both equations are equal to h, we can set them equal to each other:
- 4) Using the above equations, divide each side by a and b.

Practice

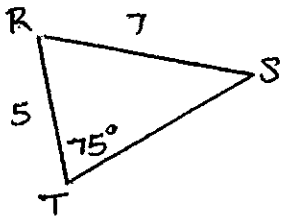
1. For the triangle given, find:

a. $\angle F$.

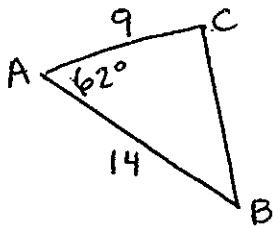
b. The length of side "e".



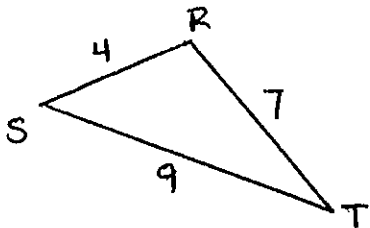
2. Find the measure of $\angle S$.



3. Find BC.

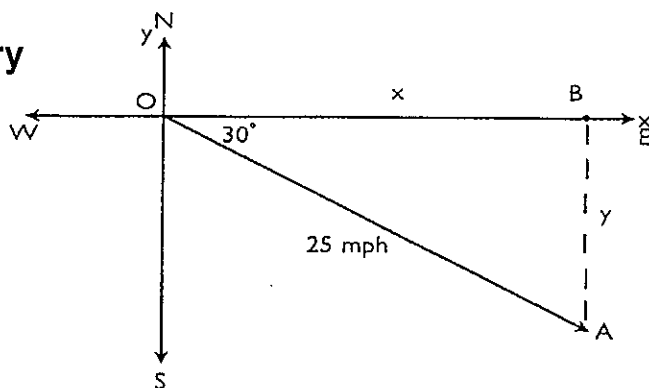


4. Find $m\angle R$.



Lesson 13-8: Vectors & Area

Vocabulary



Vector A is 30° clockwise from positive x axis

Vector A is 30° south of east

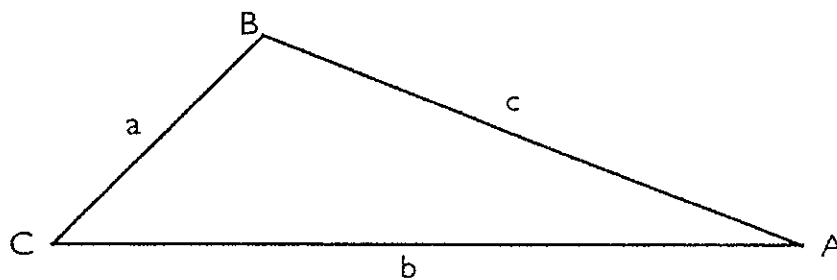
Vector: _____

Velocity: _____

Magnitude: _____

SAS Triangle Area Formula: _____

Practice



1. Find the eastern component of x in the above picture.

2. Find the southern component of y in the above picture.

3. An airplane has to fly to a location 60km east and 100km north of its present location.
- In what direction should it fly?
 - How far will it travel?

4. Find the area of $\triangle PQR$.

