Unit Circle

Day 1 Notes

Objective:

To find the side lengths of 30-60-90 and 45-45-90 degree triangles.

To plot 30-60-90 and 45-45-90 degree triangles on a coordinate plane.

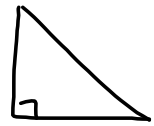
Sep 15-4:14 PM

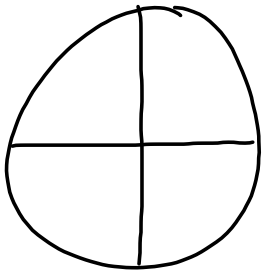
1st period notes

Sep 15-4:16 PM

Trig:

2 min: What do you know?

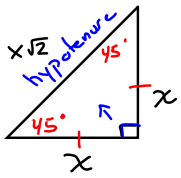


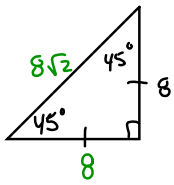


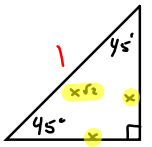
hypotenuse
chord
SOHCAHTOA
$a^2+b^2=c^2$
radius
Secant

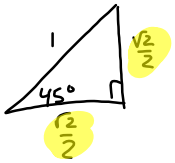
Sep 15-7:27 AM

45-45-90

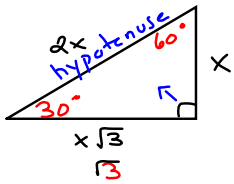


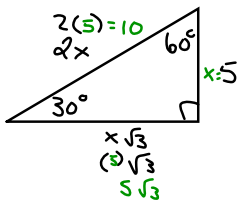


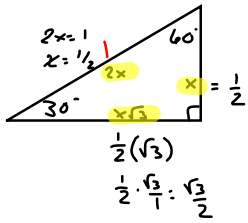


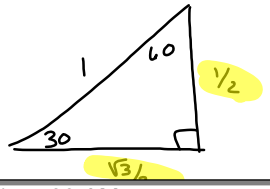


30-60-90

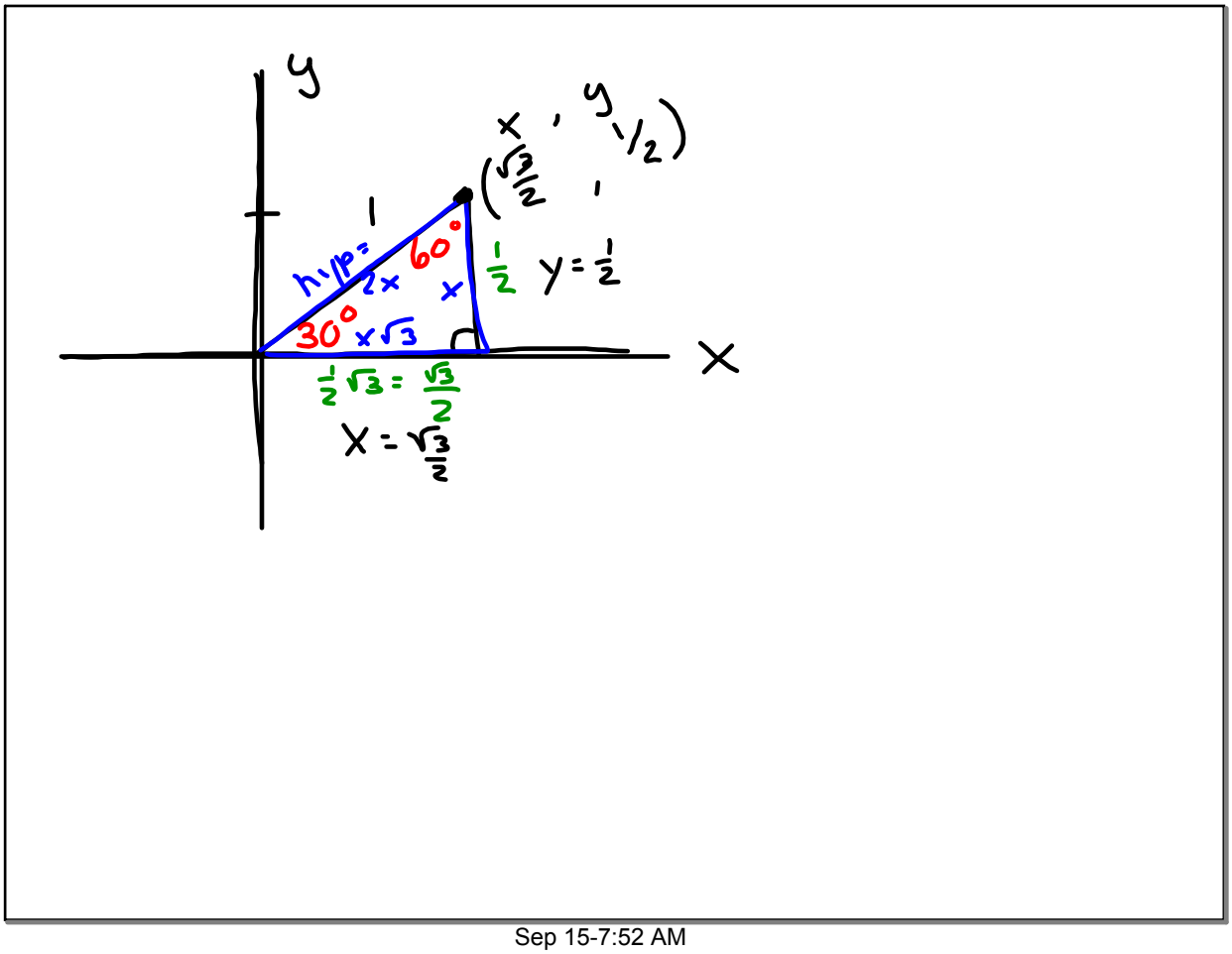








Sep 15-7:33 AM



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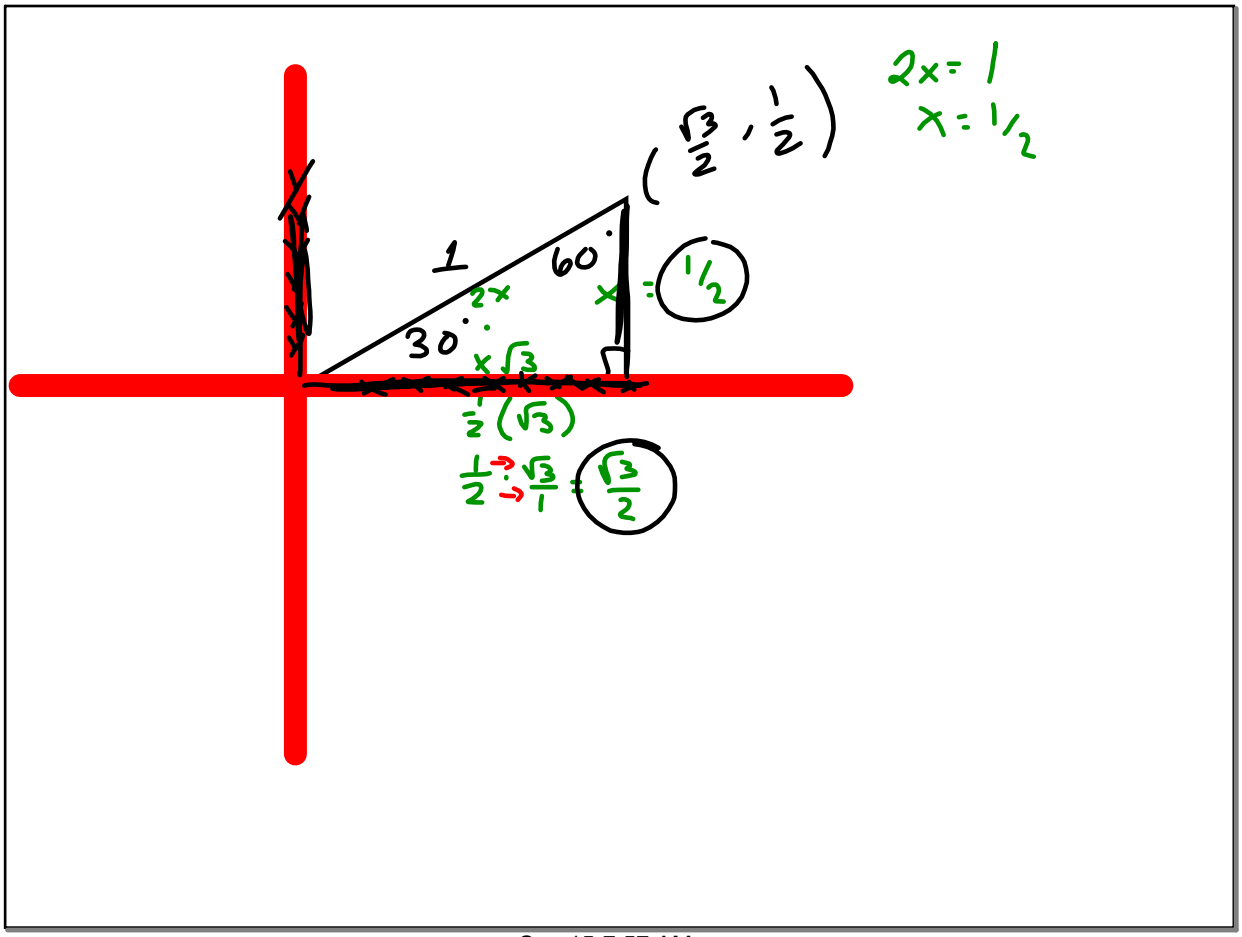

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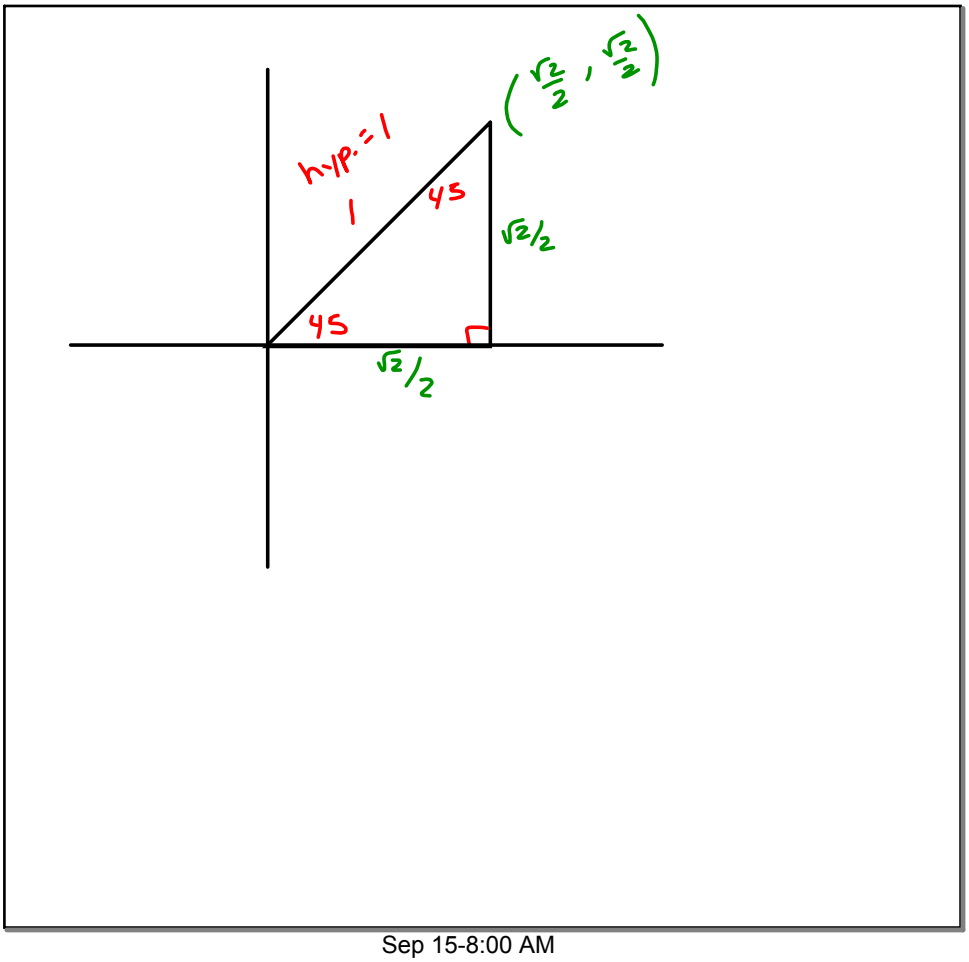

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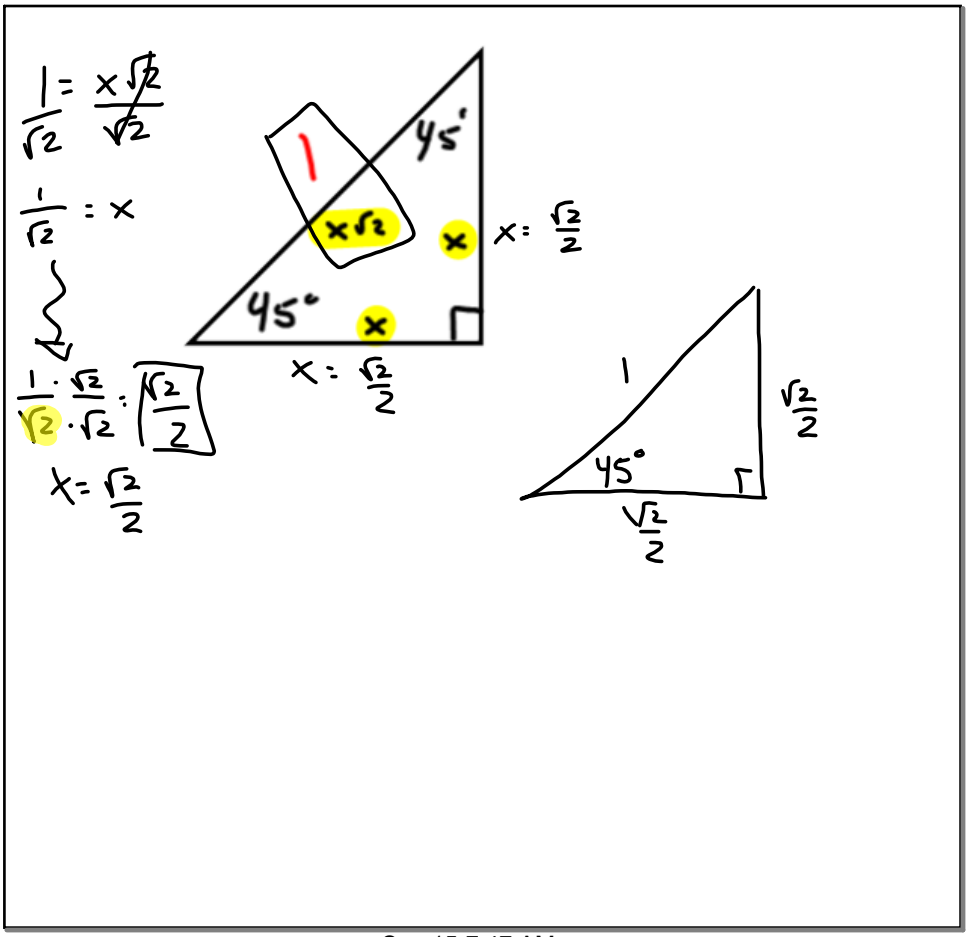


Sep 15-7:47 AM

4th period Notes

Sep 15-4:14 PM

Circles & triangles

2 min

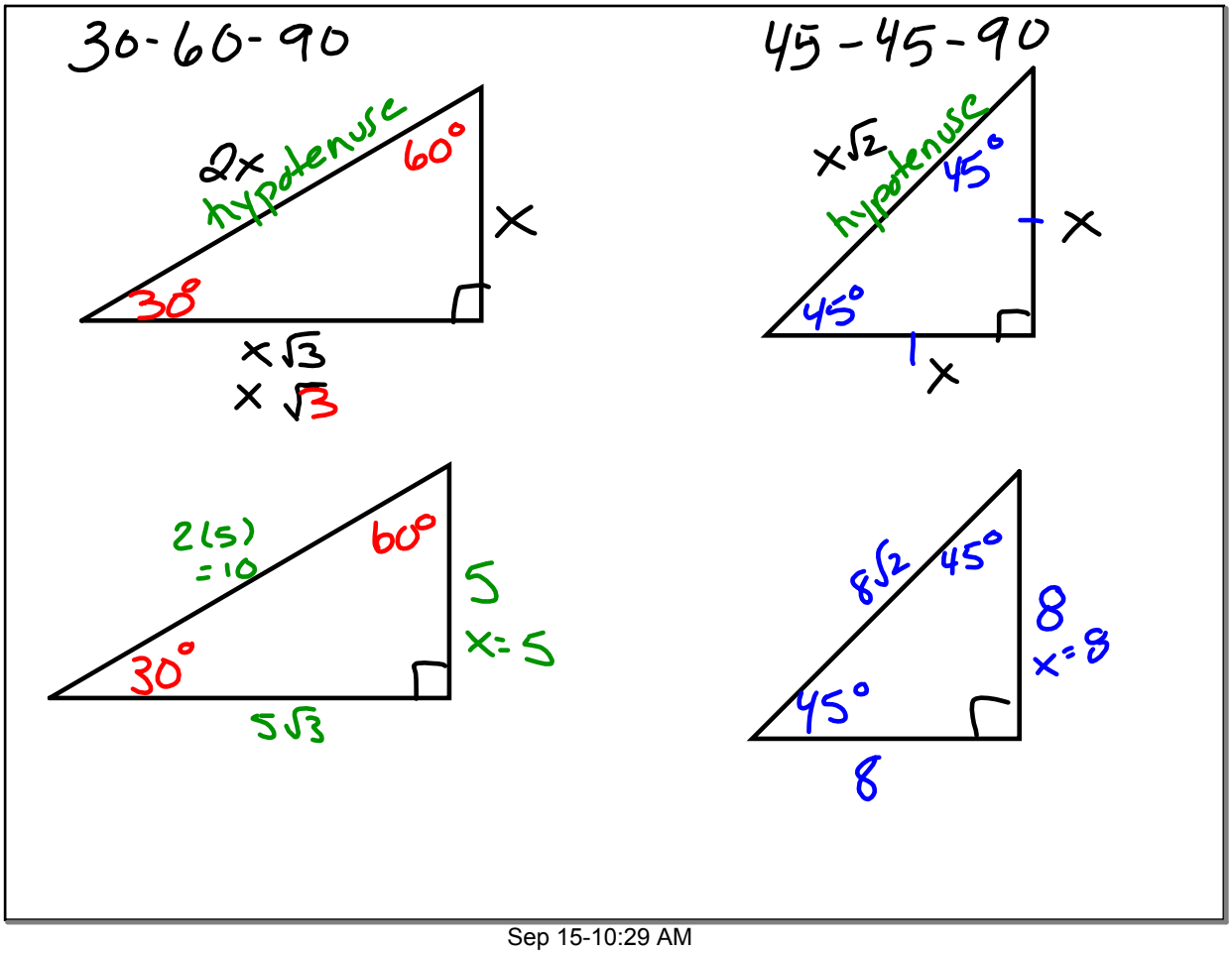
radius
diameter
$C = 2\pi r$
$A = \pi r^2$
360°

SOHCAHTOA
$a^2 + b^2 = c^2$
Rt Δ
3 types
180°

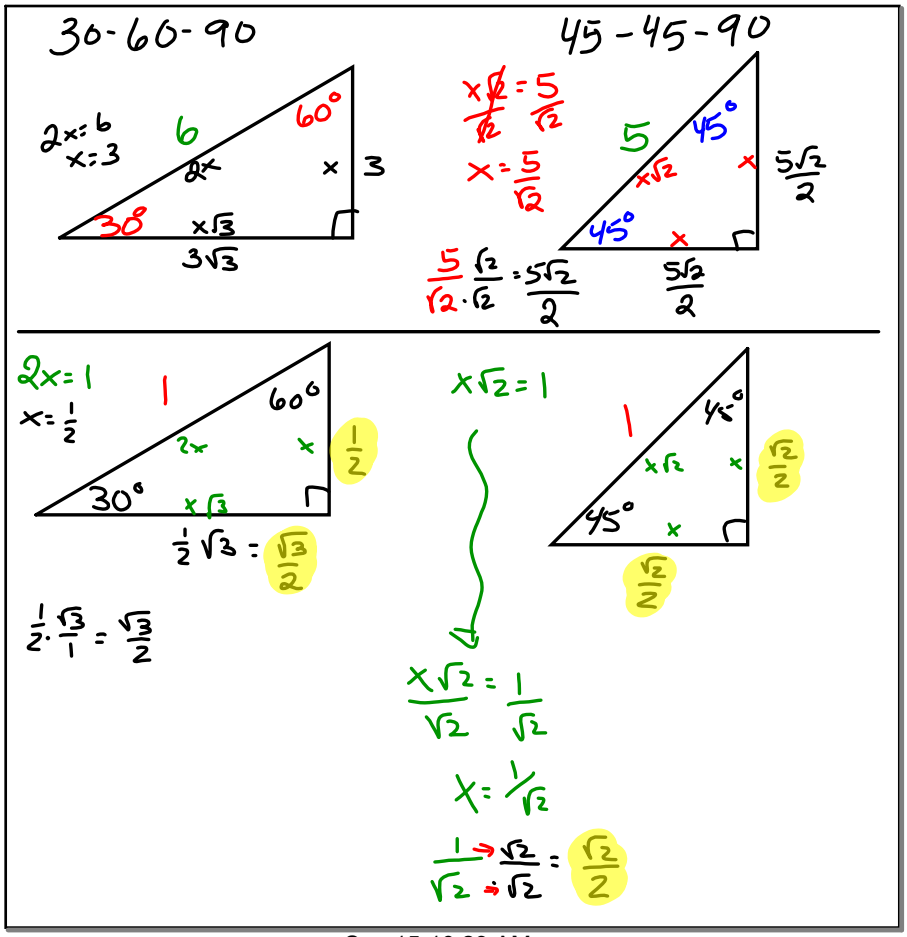
$\sin = \frac{O}{H}$
$\cos = \frac{A}{H}$
$\tan = \frac{O}{A}$

$S_H^O C_H^A T_A^O$

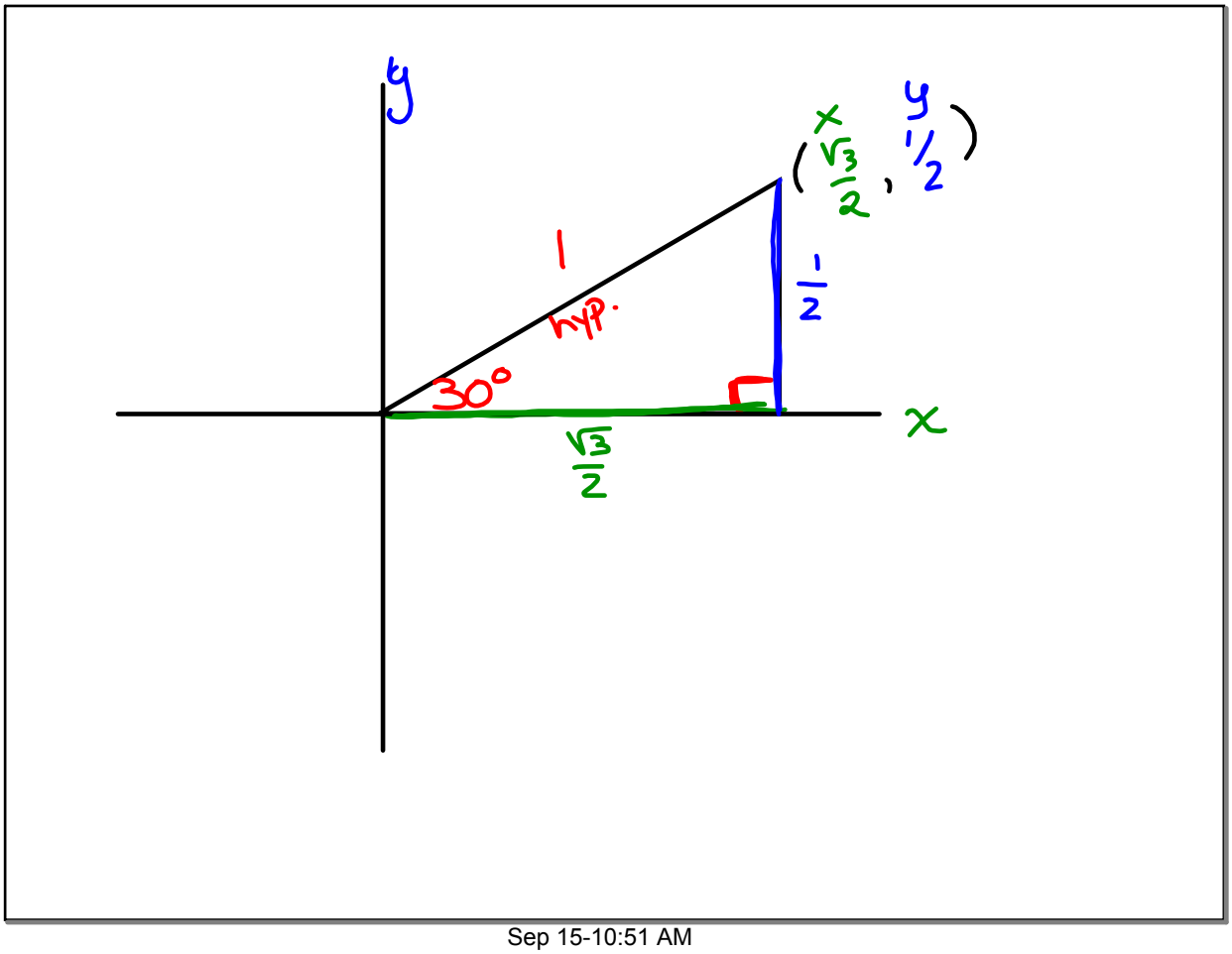
Sep 15-7:15 AM



Sep 15-10:29 AM



Sep 15-10:29 AM



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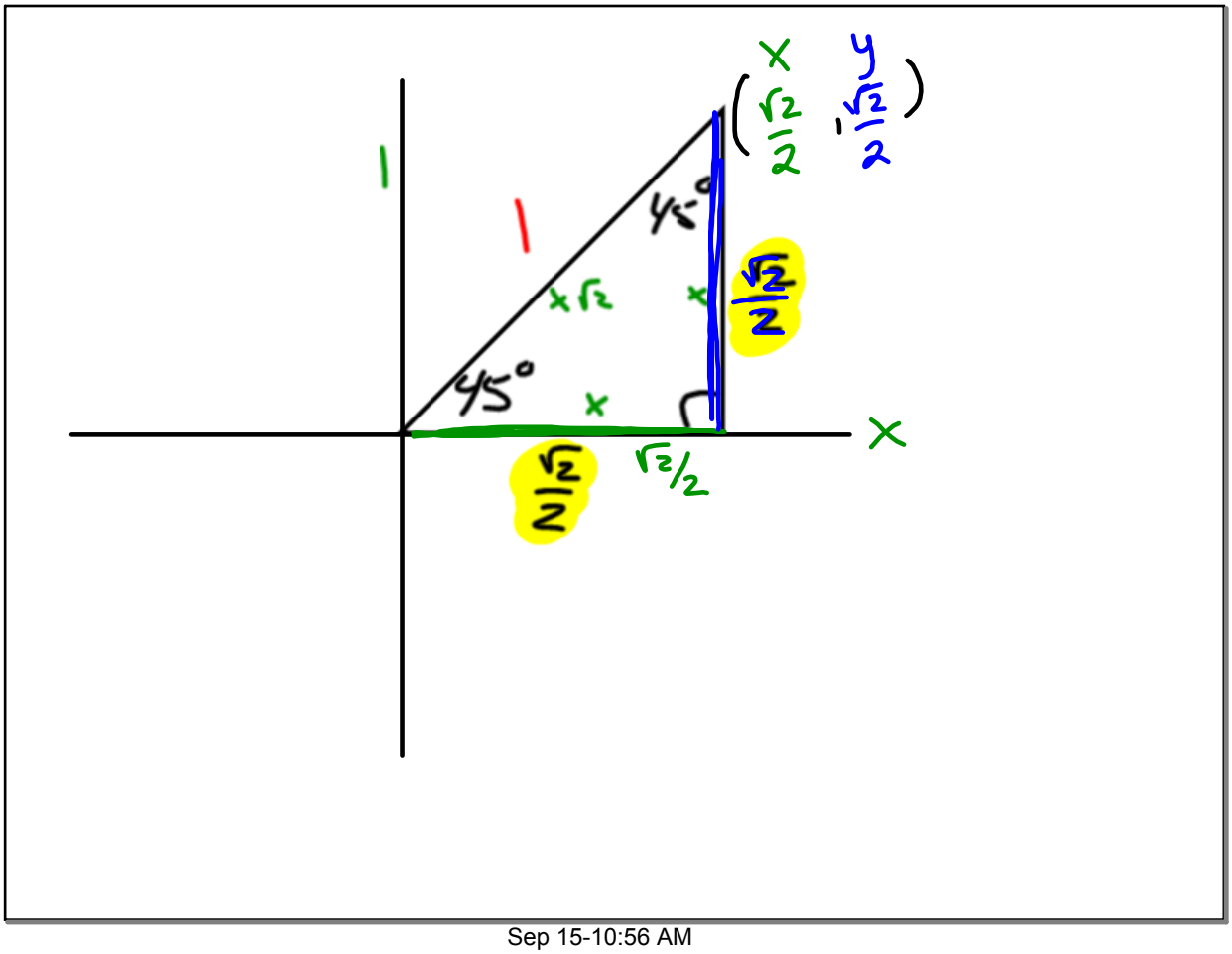

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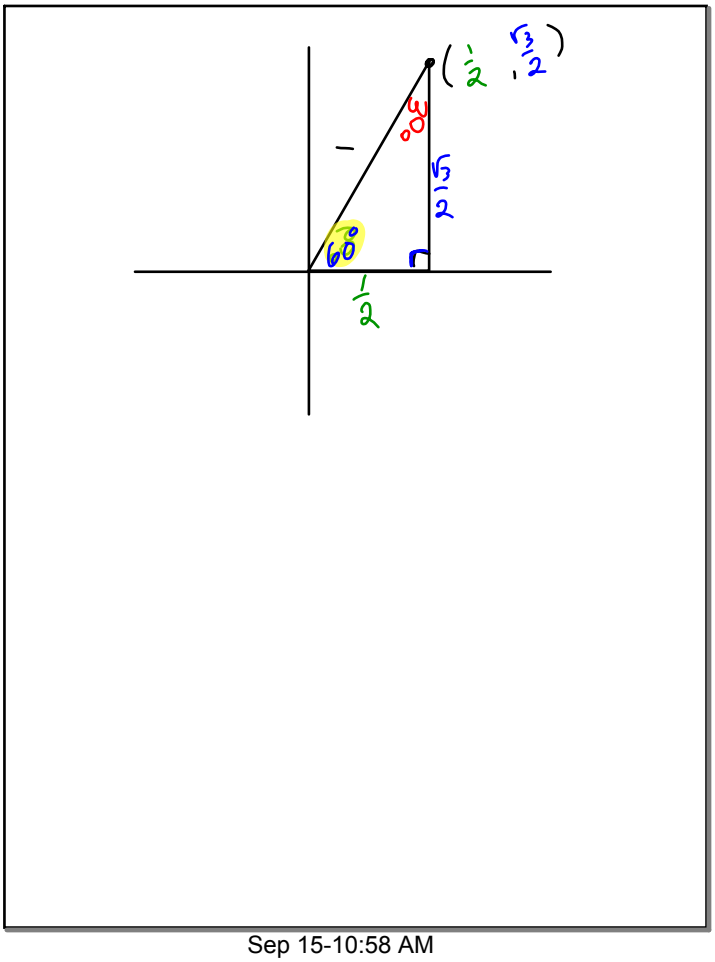

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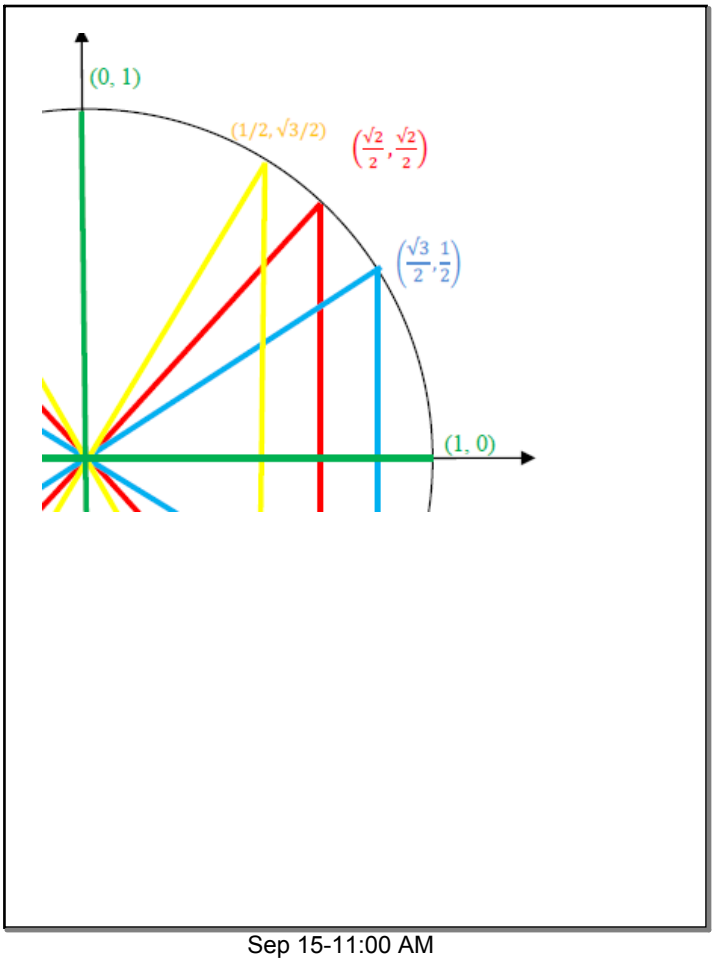


Sep 15-11:00 AM

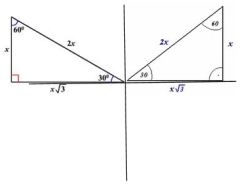
Notes Organizer Unit 2 - Triangle Trigonometry Fall 2012

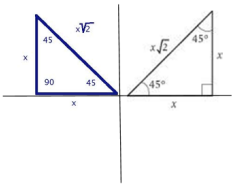
Write out the Trig Ratios _____

Sin θ = ___ **cos θ = ___** **tan θ = ___**



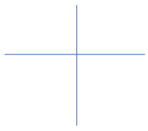
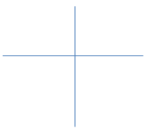
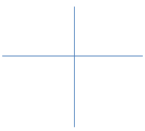
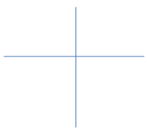
Special Right Triangle





Making Triangles on a Coordinate Plane

Triangle at (3,6) **Triangle at (-3,6)** **Triangle at (-3,-6)** **Triangle at (3,-6)**

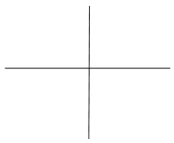
Hypotenuse = ___ Hypotenuse = ___ Hypotenuse = ___ Hypotenuse = ___

Sin θ = ___ Sin θ = ___ Sin θ = ___ Sin θ = ___

cos θ = ___ cos θ = ___ cos θ = ___ cos θ = ___

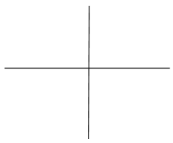
tan θ = ____ tan θ = ____ tan θ = ____ tan θ = ____

Sketch a 60^0 right triangle is Quad. I



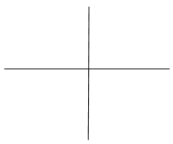
What is the total degree of this angle between 0^0 and 360^0? _____

Sketch a 60^0 right triangle from the x-axis is Quad. II



What is the total degree of this angle between 0^0 and 360^0? _____

Sketch a 60^0 right triangle from the x-axis in Quad. III



What is the total degree of this angle between 0^0 and 360^0? _____

Which angle above is the reference angle? _____ Why? _____

Which angle above is the co-terminal angle?_____ Why? _____

Draw the angle following angle measures on a coordinate plane.

250^0 -70^0 410^0 -310^0 -540^0 -220^0

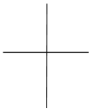
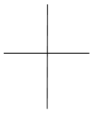
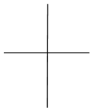
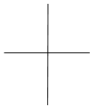





Quad __ Quad __ Quad __ Quad __ Quad __ Quad __

Plot the following points, make a line from the origin to the point, make a right triangle, and then find all side lengths and angle measure.

(3, 4) (-2, 7) (5, 1) (-3, -2) (8, -5)

Sin θ = ___ Sin θ = ___ Sin θ = ___ Sin θ = ___ Sin θ = ___

Cos θ = ___ Cos θ = ___ Cos θ = ___ Cos θ = ___ Cos θ = ___

Tan θ = Tan θ = Tan θ = Tan θ = Tan θ = ____

What is the Pythagorean Theorem? _____ When can you use this? _____

How do you find the sides of a right triangle? 1. _____ 2. _____

How do you find the angle measures of a right triangle? _____

What does this stand for?

SOHCAHTOA

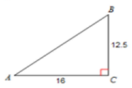
_____

_____

_____

Solve each triangle. Round answers to the nearest tenth.

1)



2)

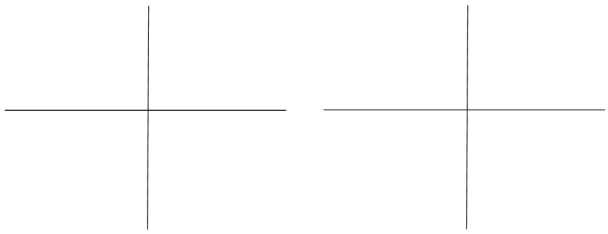
3)

4)

5)

6)

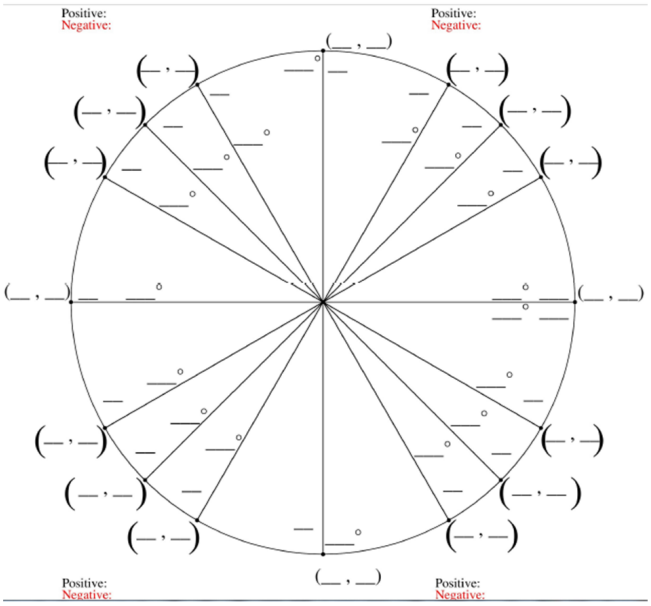
Make 30^0 , 45^0 , 60^0 triangles around the coordinate plane using all quadrants (Quad I – IV).



Unit Circle

Name_____

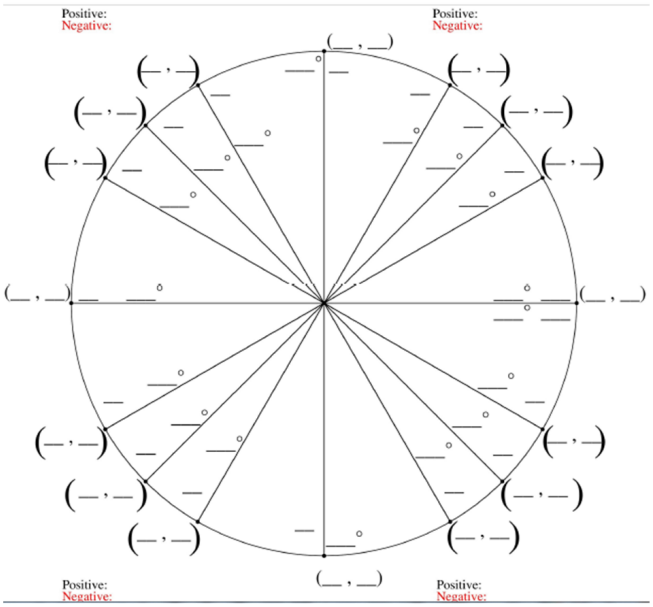
Date: 6-27-2012 Pd. _____



Unit Circle

Name_____

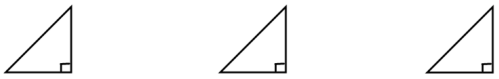
Date: 6-27-2012 Pd. ____



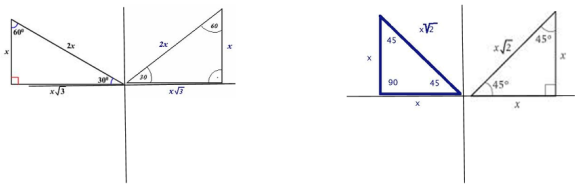
Notes Organizer Unit 2 – Triangle Trigonometry Fall 2012

Write out the Trig Ratios _____

Sin θ = ___ **cos θ = ___** **tan θ = ___**



Special Right Triangle



Making Triangles on a Coordinate Plane

Triangle at (3,6) **Triangle at (-3,6)** **Triangle at (-3,-6)** **Triangle at (3,-6)**

Hypotenuse = ___ Hypotenuse = ___ Hypotenuse = ___ Hypotenuse = ___

Sin θ = ___ Sin θ = ___ Sin θ = ___ Sin θ = ___

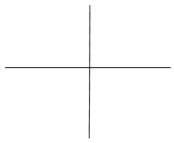
cos θ = ___ cos θ = ___ cos θ = ___ cos θ = ___

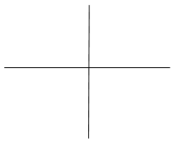
tan θ = ____ tan θ = ____ tan θ = ____ tan θ = ____

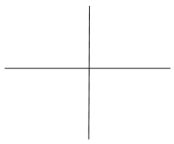
Sketch a 60^0 right triangle is Quad. I

Sketch a 60^0 right triangle from the x-axis in is Quad. II

Sketch a 60^0 right triangle from the x-axis in Quad. III







What is the total degree of this angle between 0^0 and 360^0? _____

What is the total degree of this angle between 0^0 and 360^0? _____

What is the total degree of this angle between 0^0 and 360^0? _____

Which angle above is the reference angle? _____ Why? _____

Which angle above is the co-terminal angle? _____ Why? _____

Draw the angle following angle measures on a coordinate plane.

250^0 -70^0 410^0 -310^0 -540^0 -220^0

Quad __ Quad __ Quad __ Quad __ Quad __ Quad __

Plot the following points, make a line from the origin to the point, make a right triangle, and then find all side lengths and angle measure.

(3, 4) (-2, 7) (5, 1) (-3, -2) (8, -5)

Sin θ = ___ Sin θ = ___ Sin θ = ___ Sin θ = ___ Sin θ = ___

Cos θ = ___ Cos θ = ___ Cos θ = ___ Cos θ = ___ Cos θ = ___

Tan θ = Tan θ = Tan θ = Tan θ = Tan θ = ____

What is the Pythagorean Theorem? _____ When can you use this? _____

How do you find the sides of a right triangle? 1. _____ 2. _____

How do you find the angle measures of a right triangle? _____

What does this stand for?

SOHCAHTOA

_____

_____

_____

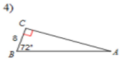
Solve each triangle. Round answers to the nearest tenth.

1)

2)

3)

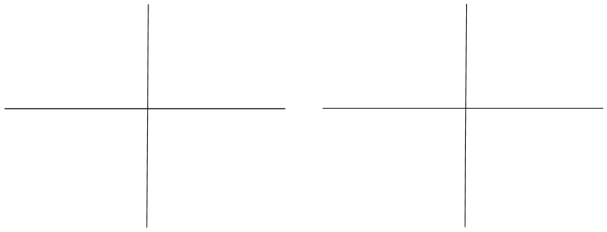
4)

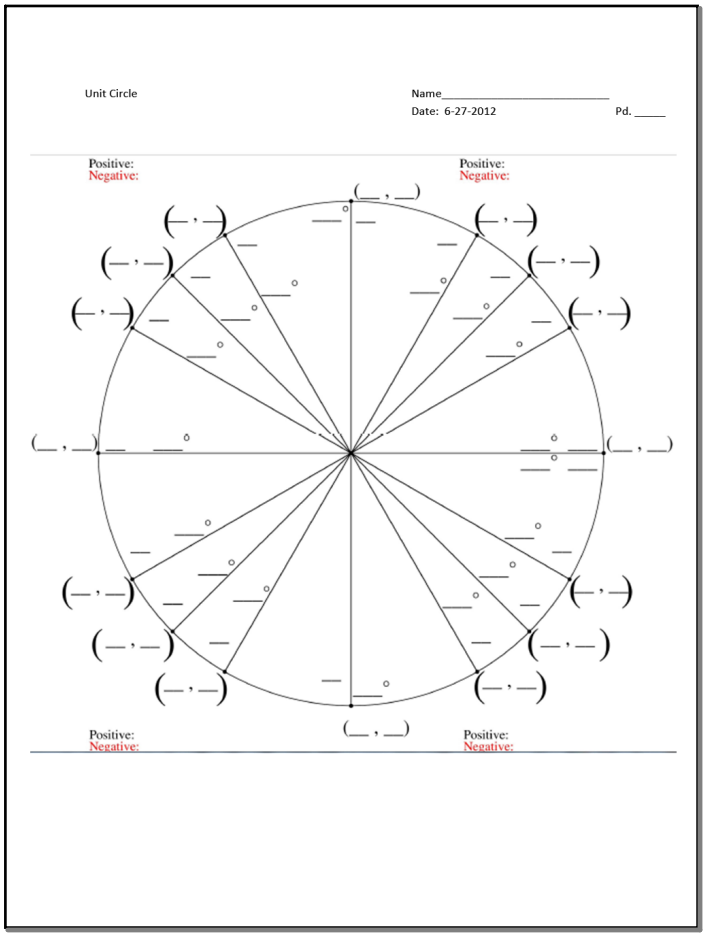


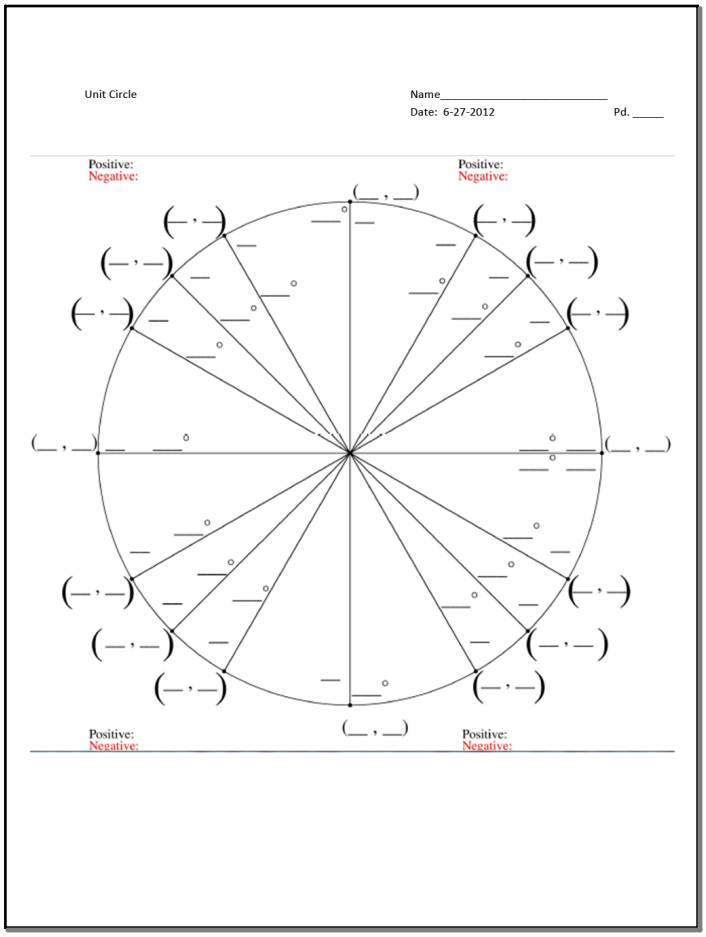
5)

6)

Make 30^0, 45^0, 60^0 triangles around the coordinate plane using all quadrants (Quad I – IV).




Unit Circle
Name_____
Date: 6-27-2012
Pd. ____
Positive:
Negative:
Positive:
Negative:
Positive:
Negative:
Positive:
Negative:


Unit Circle
Name_____
Date: 6-27-2012
Pd. ____
Positive:
Negative:
Positive:
Negative:
Positive:
Negative:
Positive:
Negative: