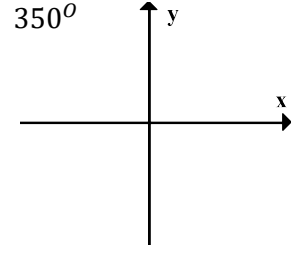
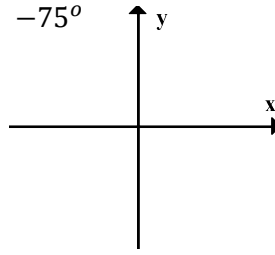
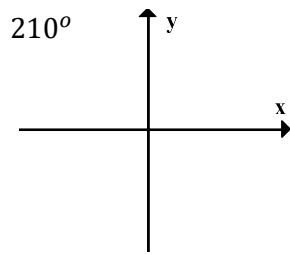
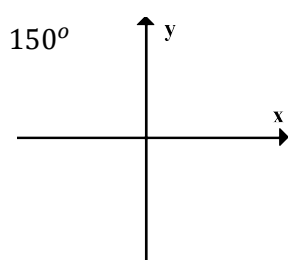


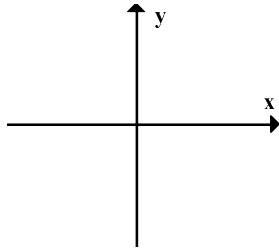
C11 - 2.1 - Sketch, Find θ_r , θ_{stp} HW

Sketch θ_{stp} .

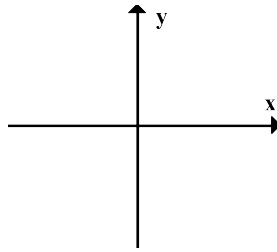


Sketch θ_r

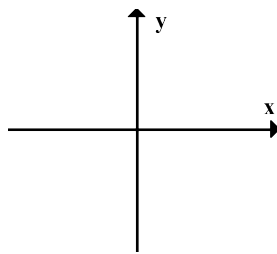
30° In Quadrant I



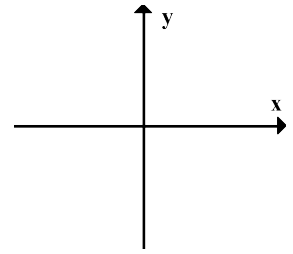
70° In Quadrant II



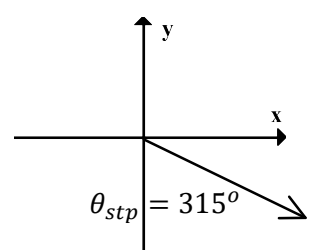
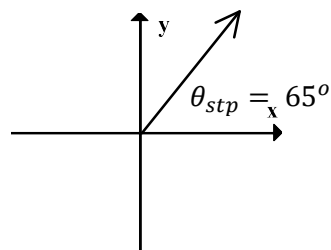
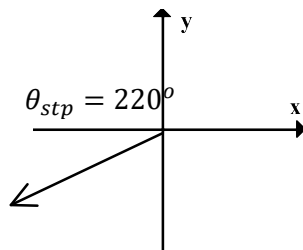
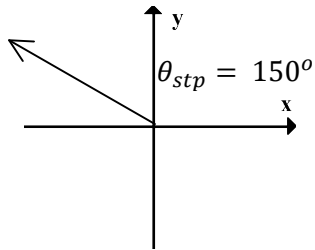
20° In Quadrant III



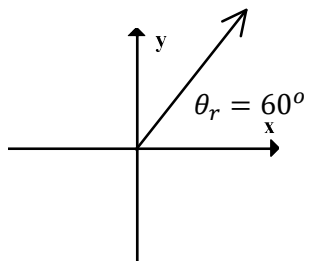
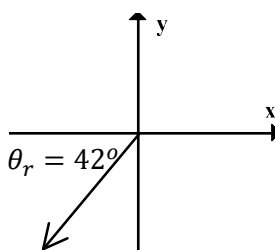
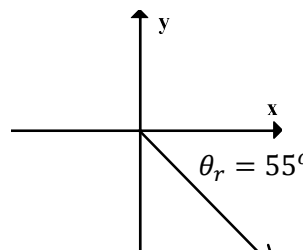
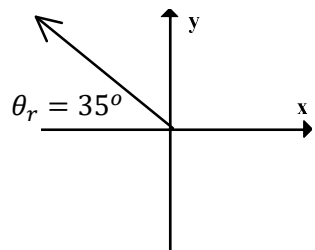
45° In Quadrant IV



Find θ_r for each θ_{stp}

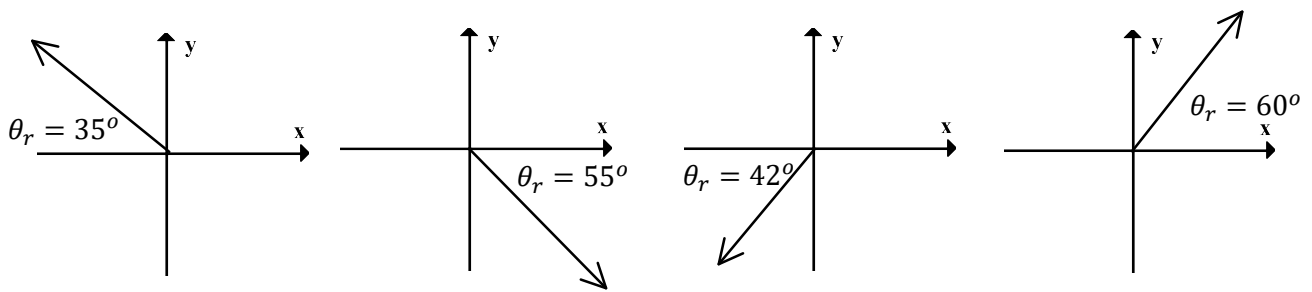


Find the smallest positive θ_{stp} for each θ_r

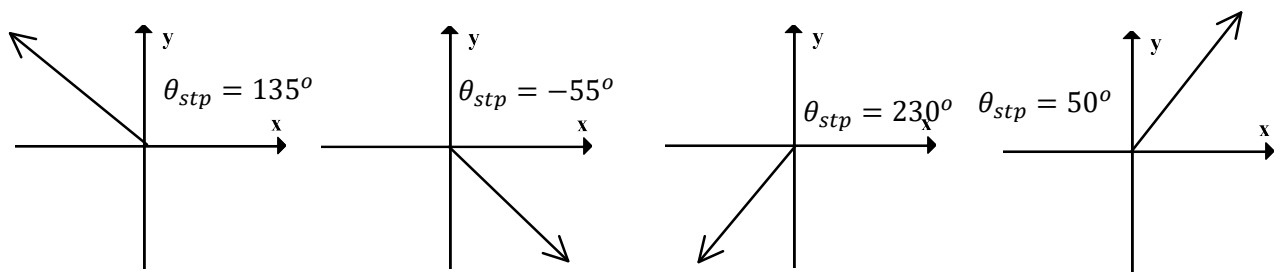


C11 - 2.1 - Sketch, Find $-\theta_{stp}, \theta_{cot}$ HW

Find a negative θ_{stp} for each θ_r



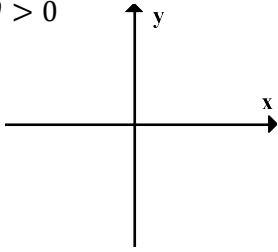
Find a positive and negative θ_{cot} for each θ_{stp}



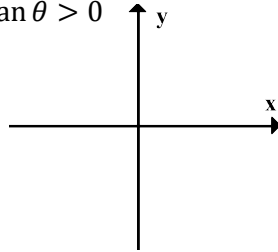
C11 - 2.2 - ASTC +/− HW

Draw 2 triangles in the quadrants for the following statements

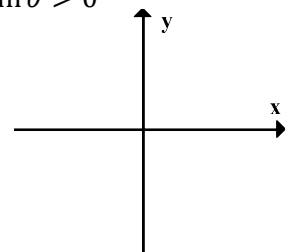
$$\cos \theta > 0$$



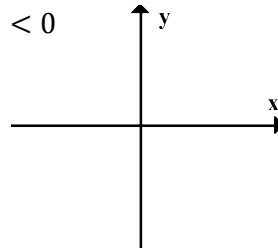
$$\tan \theta > 0$$



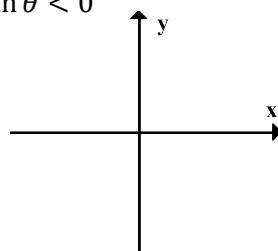
$$\sin \theta > 0$$



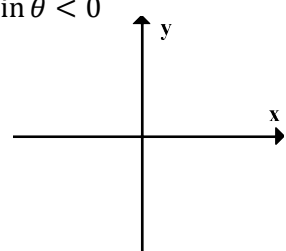
$$\cos \theta < 0$$



$$\tan \theta < 0$$

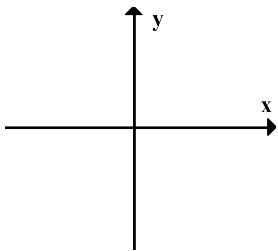


$$\sin \theta < 0$$

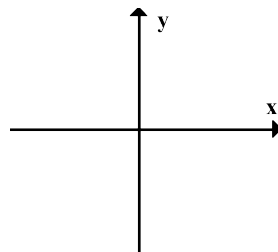


Draw a triangle in the quadrant for following statements

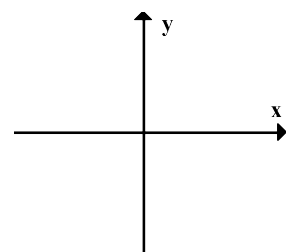
$$\cos \theta > 0 \text{ and } \sin \theta < 0$$



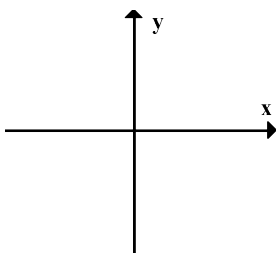
$$\cos \theta < 0 \text{ and } \tan \theta > 0$$



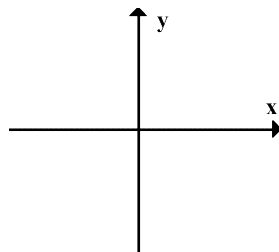
$$\tan \theta > 0 \text{ and } \sin \theta > 0$$



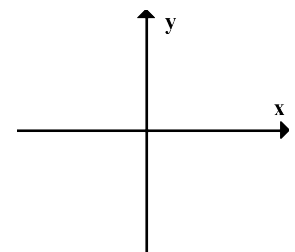
$$\cos \theta < 0 \text{ and } \sin \theta < 0$$



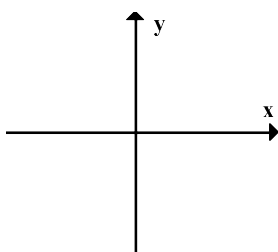
$$\cos \theta < 0 \text{ and } \tan \theta < 0$$



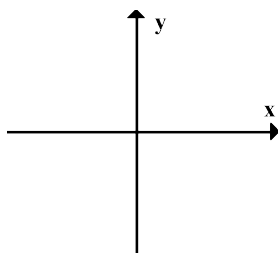
$$\tan \theta < 0 \text{ and } \sin \theta > 0$$



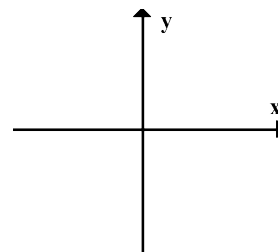
$$\cos \theta < 0 \text{ and } \sin \theta > 0$$



$$\cos \theta > 0 \text{ and } \tan \theta < 0$$



$$\tan \theta < 0 \text{ and } \sin \theta < 0$$

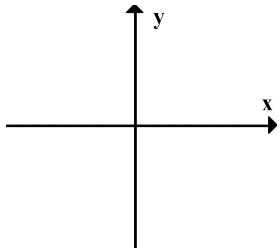


C11 - 2.3 - Trig Ratios HW

SOH CAH TOA

Find $\sin x$, $\cos x$, and $\tan x$ for the following points. And θ_{stp}

(4,3)



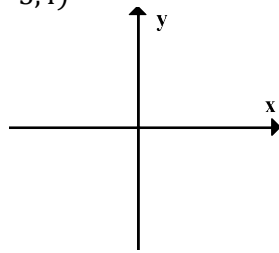
$$\sin x =$$

$$\cos x =$$

$$\tan x =$$

$$\theta_{stp} =$$

(-3,4)



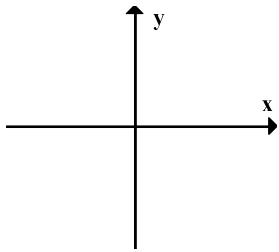
$$\sin x =$$

$$\cos x =$$

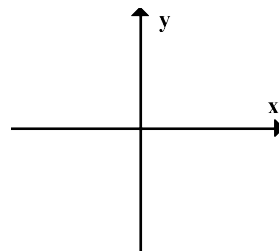
$$\tan x =$$

$$\theta_{stp} =$$

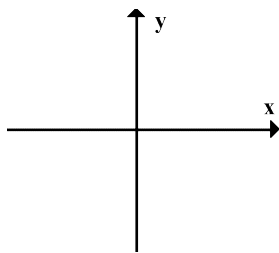
(-3,-4)



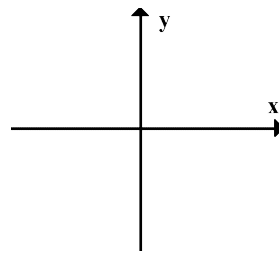
(-5,12)



(6,8)



(8,-6)



(3,4)

(2, $\sqrt{5}$)

(5,12)

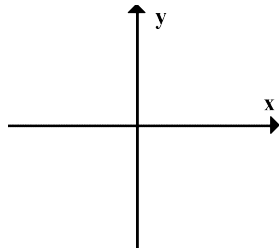
(5, $4\sqrt{6}$)

C11 - 2.3 - Trig Ratios HW

SOH CAH TOA

Find $\sin x$, $\cos x$, and $\tan x$ for the following points. And θ_{stp}

$(-2, 5)$



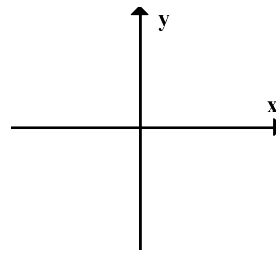
$$\sin x =$$

$$\cos x =$$

$$\tan x =$$

$$\theta_{stp} =$$

$(3, -3)$



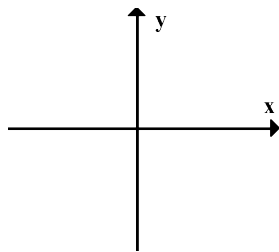
$$\sin x =$$

$$\cos x =$$

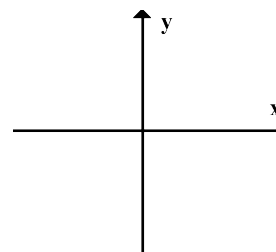
$$\tan x =$$

$$\theta_{stp} =$$

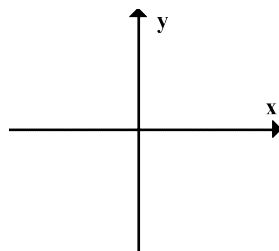
$(-5, -7)$



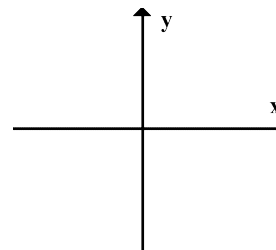
$(-3, 8)$



$(4, 2)$



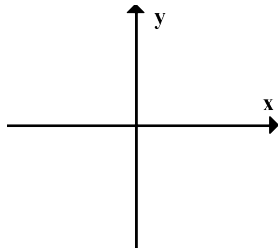
$(7, -1)$



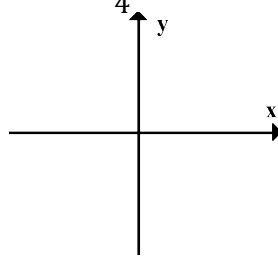
C11 - 2.3 - Trig Ratio Equations HW

Solve for x , $0 \leq x < 360$, answer should say $x =$

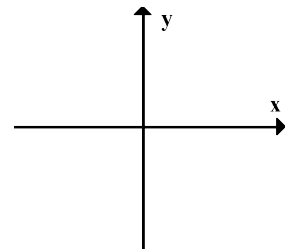
$$\sin x = 0.6$$



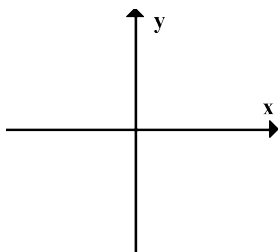
$$\cos x = -\frac{1}{4}$$



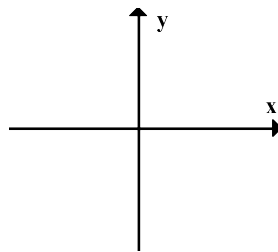
$$\cos x = 0.45$$



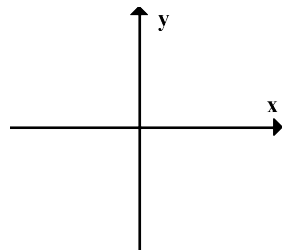
$$\tan x = \frac{4}{5}$$



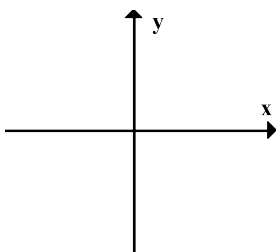
$$\tan x = \frac{1}{5}$$



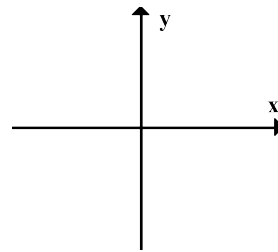
$$\sin x = \frac{1}{3}$$



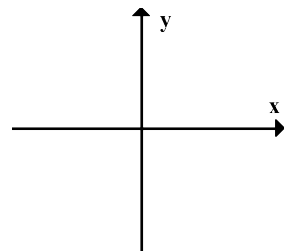
$$\sin x = -0.1$$



$$\cos x = -0.5$$



$$\tan x = -0.866$$



$$\sin x = -0.2$$

$$\tan x = 0.866$$

$$\cos x = 2$$

$$\sin x = 0.5$$

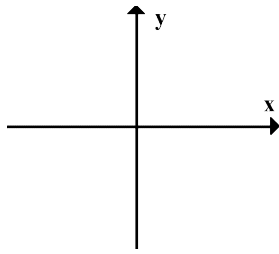
$$\tan x = -1$$

C11 - 2.4 - Special Trig Ratios HW

SOH CAH TOA

Find $\sin x$, $\cos x$, and $\tan x$ for the following points. And θ_{stp}

(1,1)



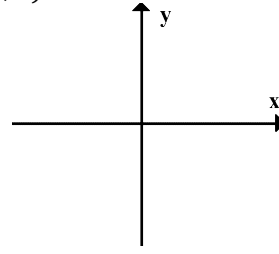
$$\sin x =$$

$$\cos x =$$

$$\tan x =$$

$$\theta_{stp} =$$

$(-\sqrt{3}, 1)$



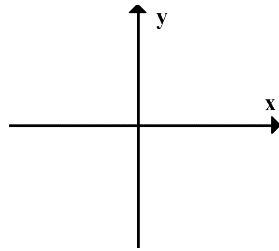
$$\sin x =$$

$$\cos x =$$

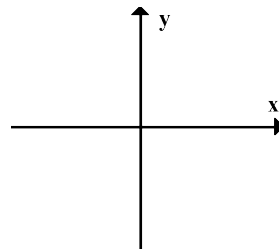
$$\tan x =$$

$$\theta_{stp} =$$

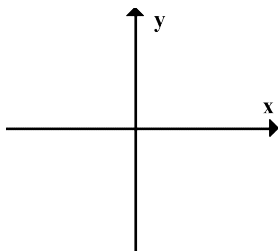
$(1, -\frac{1}{\sqrt{3}})$



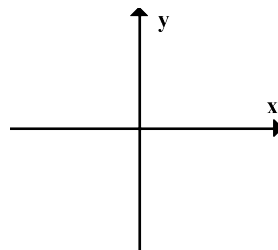
$(-1, 1)$



$(-3\sqrt{3}, -\sqrt{3})$

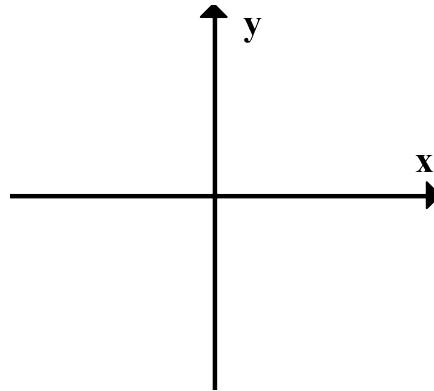


$(-2\sqrt{3}, -2)$



C11 - 2.4 - Special Trig Ratios HW

Solve using the Special Triangles and ASTC and the Unit Circle



$$\sin 30 =$$

$$\sin 150 =$$

$$\sin 210 =$$

$$\sin 330 =$$

$$\cos 30 =$$

$$\cos 150 =$$

$$\cos 210 =$$

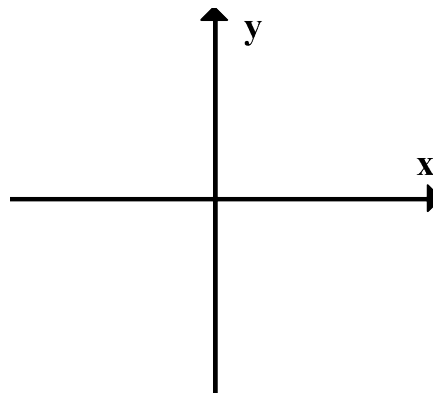
$$\cos 330 =$$

$$\tan 30 =$$

$$\tan 150 =$$

$$\tan 210 =$$

$$\tan 330 =$$



$$\sin 45 =$$

$$\sin 135 =$$

$$\sin 225 =$$

$$\sin 315 =$$

$$\cos 45 =$$

$$\cos 135 =$$

$$\cos 225 =$$

$$\cos 315 =$$

$$\tan 45 =$$

$$\tan 135 =$$

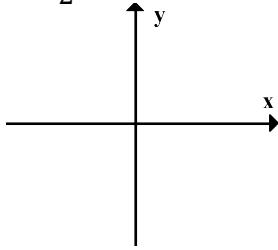
$$\tan 225 =$$

$$\tan 315 =$$

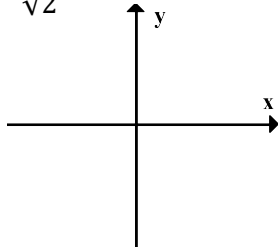
C11 - 2.5 - Special Trig Equations HW

Solve for x , $0 \leq x < 360$, answer should say $x =$

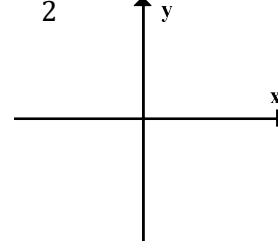
$$\sin x = \frac{1}{2}$$



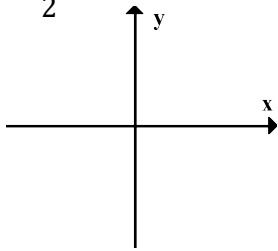
$$\cos x = \frac{1}{\sqrt{2}}$$



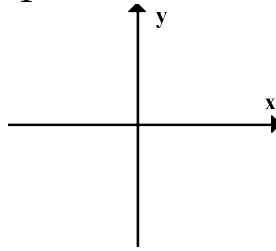
$$\sin x = \frac{\sqrt{3}}{2}$$



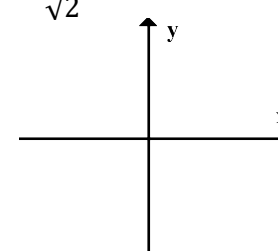
$$\cos x = \frac{\sqrt{3}}{2}$$



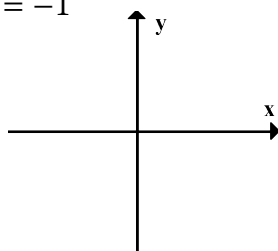
$$\tan x = 1$$



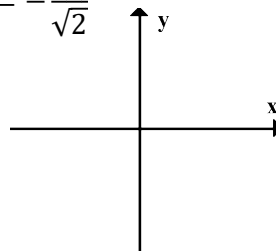
$$\cos x = -\frac{1}{\sqrt{2}}$$



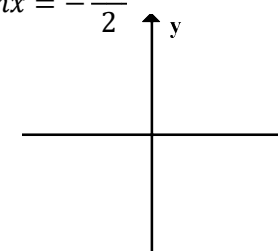
$$\tan x = -1$$



$$\sin x = -\frac{1}{\sqrt{2}}$$



$$\sin x = -\frac{\sqrt{3}}{2}$$



$$\sin x = -\frac{1}{2}$$

$$\tan x = \sqrt{3}$$

$$\cos x = -\frac{\sqrt{3}}{2}$$

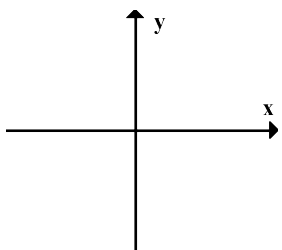
$$\sin x = \sqrt{3}$$

$$\tan x = \frac{\sqrt{3}}{2}$$

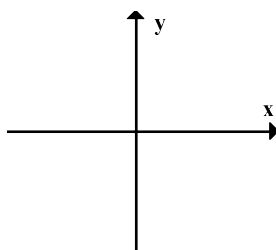
C11 - 2.5 - Algebra Special Trig Equations HW

Solve for x , $0 \leq x < 360$

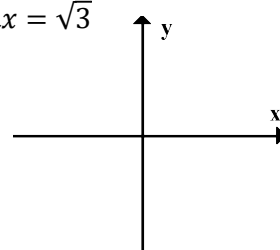
$$2\sin x = 1$$



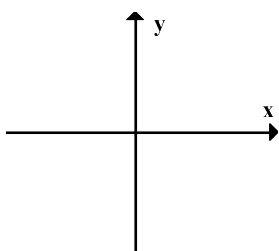
$$\sqrt{2}\cos x = 1$$



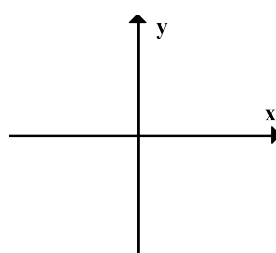
$$-2\sin x = \sqrt{3}$$



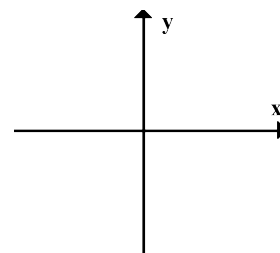
$$-\sqrt{2}\sin x - 1 = 0$$



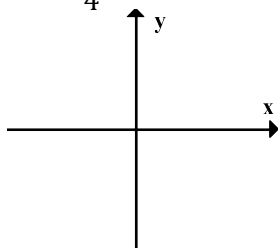
$$2\sin^2 x - 1 = 0$$



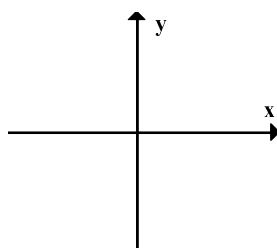
$$\tan x - 2 = -3$$



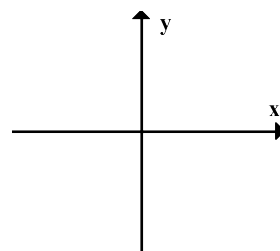
$$\sin^2 x = \frac{1}{4}$$



$$2\cos^2 x = 1$$



$$\tan^2 x = 1$$



$$2\tan x = 2$$

$$4\cos^2 x - 1 = 0$$

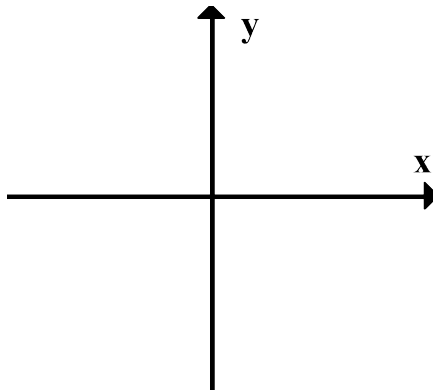
$$2\sin x = -\sqrt{3}$$

$$2\cos x = -\sqrt{3}$$

$$2\cos x + 1 = 0$$

C11 - 2.6 - Unit Circle HW

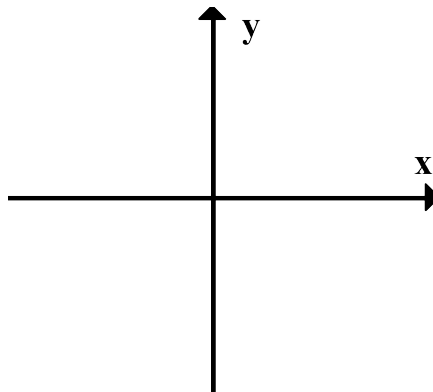
Solve using the Unit Circle



$$\sin 0 = \quad \sin 90 = \quad \sin 180 = \quad \sin 270 = \quad \sin 360 =$$

$$\cos 0 = \quad \cos 90 = \quad \cos 180 = \quad \cos 270 = \quad \cos 360 =$$

$$\tan 0 = \quad \tan 90 = \quad \tan 180 = \quad \tan 270 = \quad \tan 360 =$$



$$\sin 360 = \quad \sin 450 = \quad \sin 540 = \quad \sin 630 = \quad \sin 720 =$$

$$\cos 360 = \quad \cos 450 = \quad \cos 540 = \quad \cos 630 = \quad \cos 720 =$$

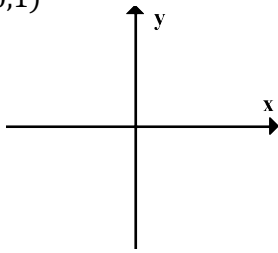
$$\tan 360 = \quad \tan 450 = \quad \tan 540 = \quad \tan 630 = \quad \tan 720 =$$

C11 - 2.6 - Unit Circle Trig Ratios HW

SOH CAH TOA

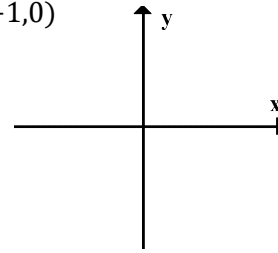
Find $\sin x$, $\cos x$, and $\tan x$ for the following points. And θ_{stp}

(0,1)



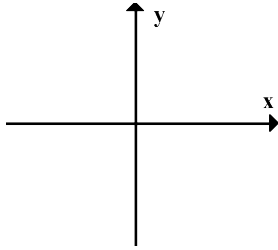
$$\begin{aligned}\sin x &= \\ \cos x &= \\ \tan x &= \\ \theta_{stp} &= \end{aligned}$$

(-1,0)

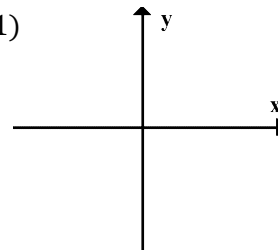


$$\begin{aligned}\sin x &= \\ \cos x &= \\ \tan x &= \\ \theta_{stp} &= \end{aligned}$$

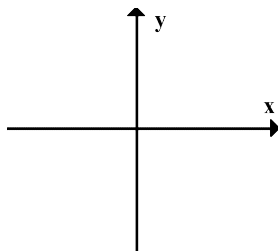
(1,0)



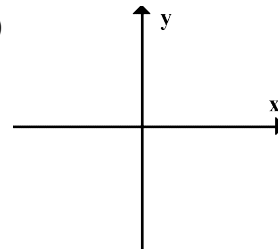
(0,-1)



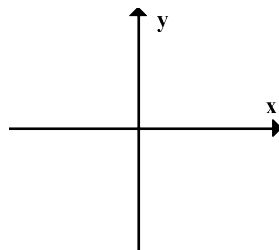
(0,2)



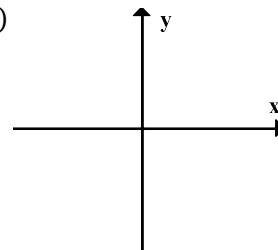
(0,-3)



(4,0)



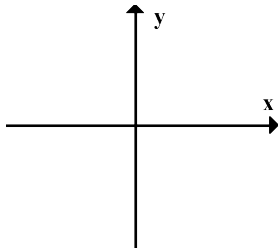
(0,-5)



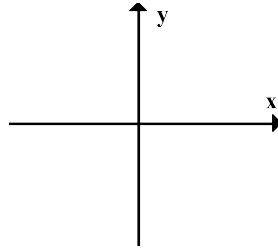
C11 - 2.6 - Unit Circle Trig Equations HW

Solve for θ , $0 \leq \theta < 360$

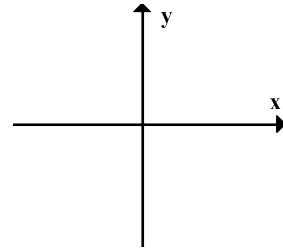
$$\sin\theta = 1$$



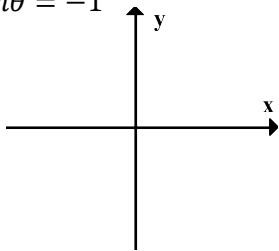
$$\cos\theta = 0$$



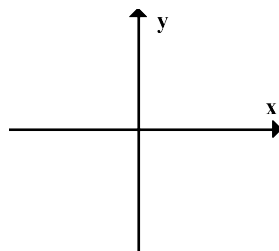
$$\cos\theta = -1$$



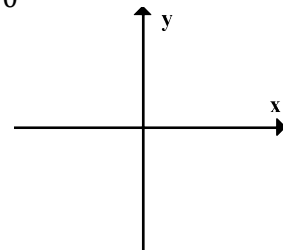
$$\sin\theta = -1$$



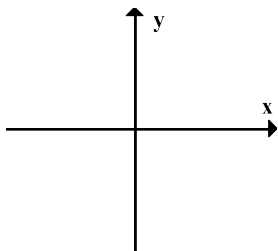
$$\tan\theta = \text{und}$$



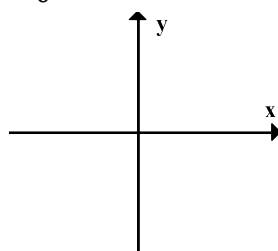
$$\sin\theta = 0$$



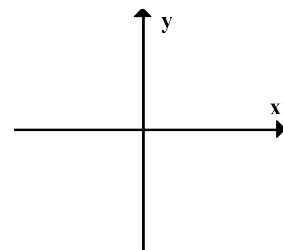
$$\cos\theta = 1$$



$$\tan\theta = 0$$



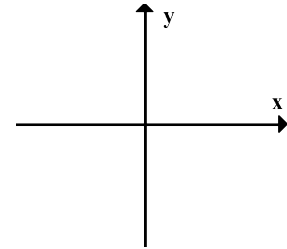
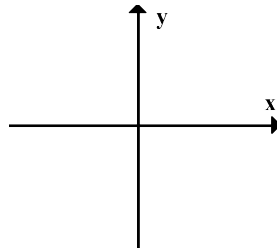
$$\sin^2\theta - 1 = 0$$



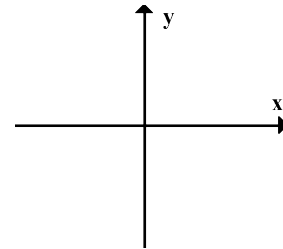
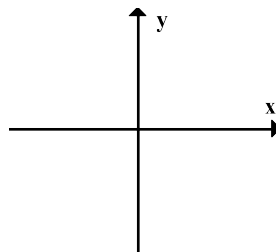
C11 - 2.6 - Factoring Trig Equations HW

Solve for x , $0 \leq x < 360$, by factoring, then setting factors equal to zero and solve.

$$\sin^2 x - \sin x = 0$$



$$\cos^2 x - \cos x - 2$$



$$2 \cos^2 x - \cos x - 1$$

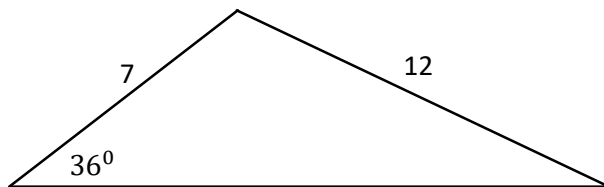
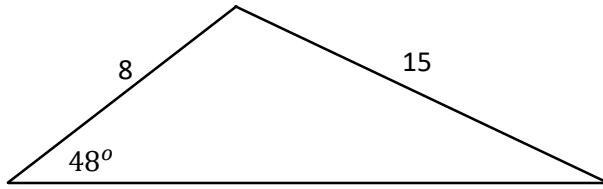
$$\cos^2 x + \cos x = 0$$

$$2 \sin^2 x + \sin x - 1$$

$$\sin^2 x + \sin x - 2 = 0$$

C11 - 2.9 - Solve ASS Triangle Without Sine Law Notes

Solve the triangle



C11 - 2.9 - Algebra Sine Law HW

Solve for the variable.

$$\frac{a}{\sin 35^\circ} = \frac{4}{\sin 27^\circ}$$

$$\frac{12}{\sin 52} = \frac{c}{\sin 30}$$

$$\frac{b}{\sin 20^\circ} = \frac{2}{\sin 45^\circ}$$

$$\frac{b}{\sin 35^\circ} = \frac{4}{\sin 27^\circ}$$

$$\frac{12}{\sin 52} = \frac{a}{\sin 30}$$

$$\frac{c}{\sin 25^\circ} = \frac{8}{\sin 67^\circ}$$

$$\frac{\sin A}{14} = \frac{\sin 29^\circ}{8}$$

$$\frac{\sin 23}{7} = \frac{\sin C}{5}$$

$$\frac{\sin 42}{2} = \frac{\sin A}{3}$$

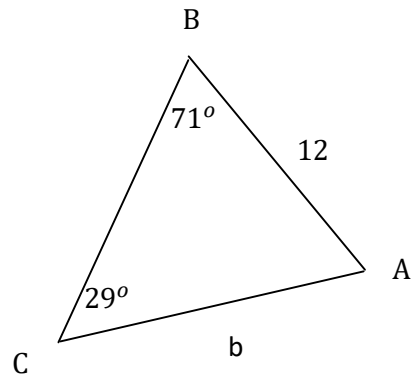
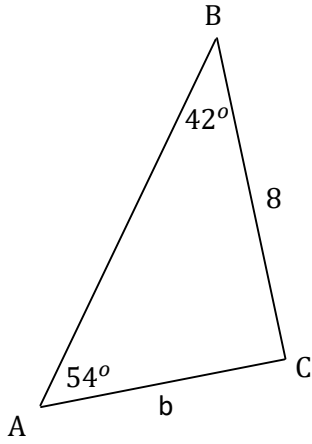
$$\frac{\sin C}{5} = \frac{\sin 11^\circ}{1}$$

$$\frac{\sin 43}{21} = \frac{\sin C}{4}$$

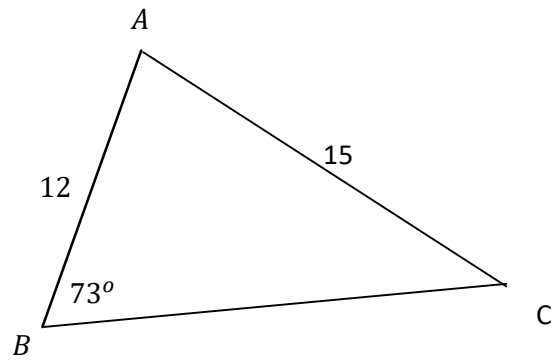
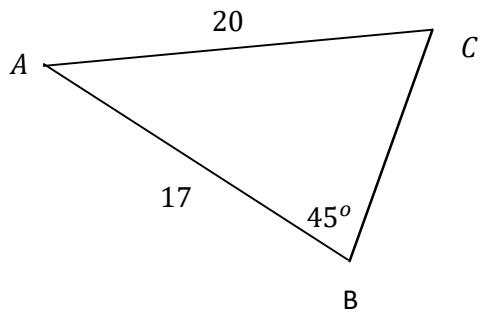
$$\frac{\sin 73}{2} = \frac{\sin A}{7}$$

C11 - 2.9 - Sine Law HW

Solve for b.

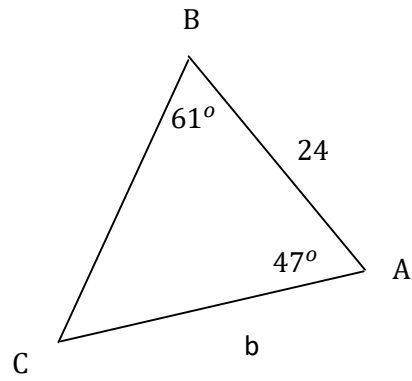
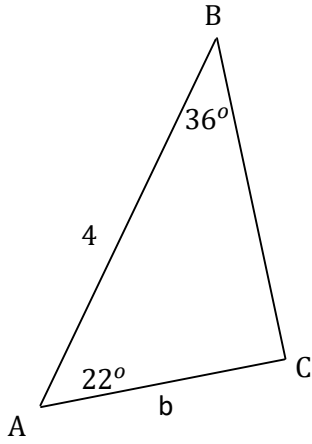


Solve for the angle C

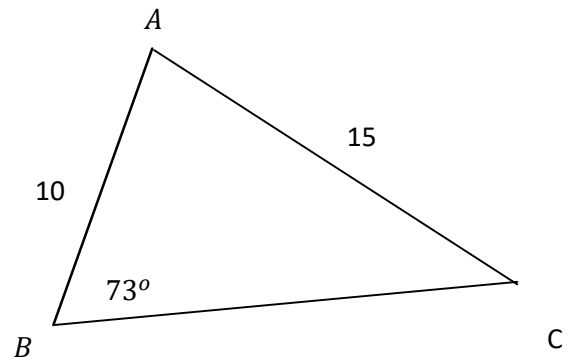
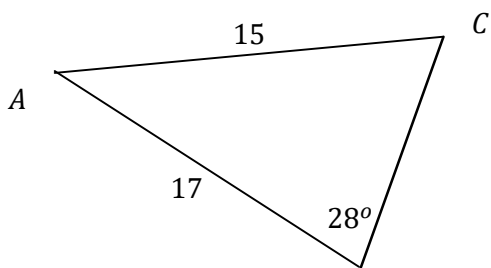


C11 - 2.9 - Sine Law HW

Solve for b.

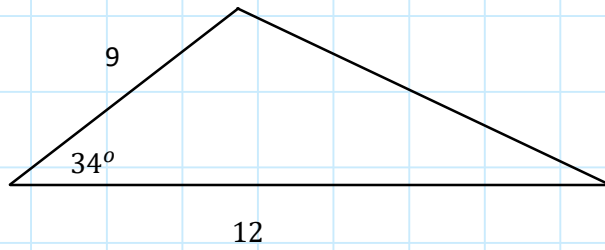


Solve for the angle C



C11 - 2.10 - Solve SAS Triangle Without Cosine Law Notes

Solve the triangle.



C11 - 2.10 - Algebra Cosine Law HW

Solve for the variable. Enter the right hand side into your calculator, square root both sides.

$$c^2 = 4^2 + 5^2 - 2(4)(5)\cos 30$$

$$c^2 = 10^2 + 7^2 - 2(10)(7)\cos 60$$

$$c^2 = 8^2 + 9^2 - 2(8)(9)\cos 45$$

$$c^2 = 11^2 + 4^2 - 2(11)(4)\cos 50$$

Solve for the variable. Do algebra to isolate $\cos C$, then take the inverse $\cos^{-1}(\)$

$$7^2 = 5^2 + 9^2 - 2(5)(9)\cos C$$

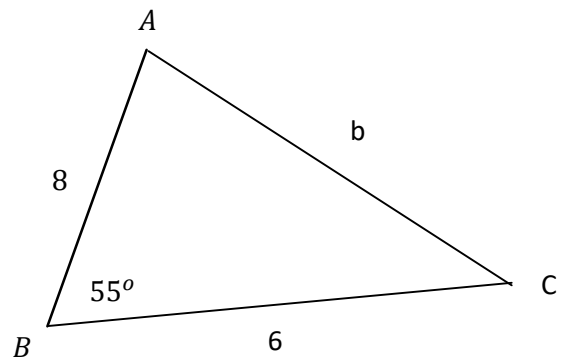
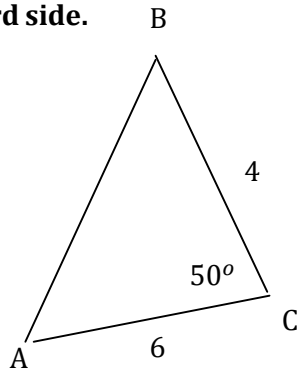
$$11^2 = 4^2 + 12^2 - 2(4)(12)\cos C$$

$$9^2 = 8^2 + 7^2 - 2(8)(7)\cos C$$

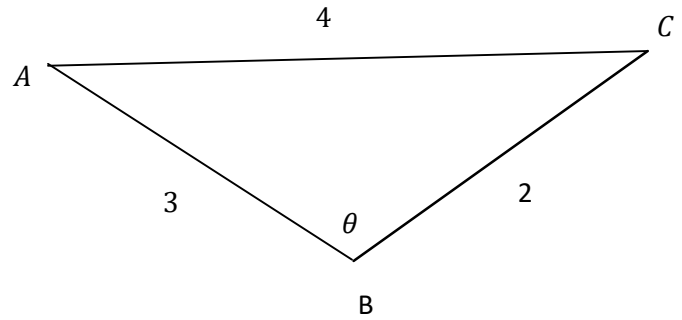
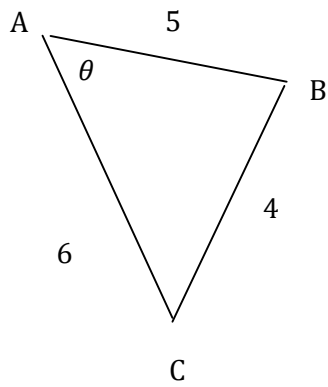
$$20^2 = 21^2 + 35^2 - 2(21)(35)\cos C$$

C11 - 2.10 - Cosine Law HW

Find the third side.

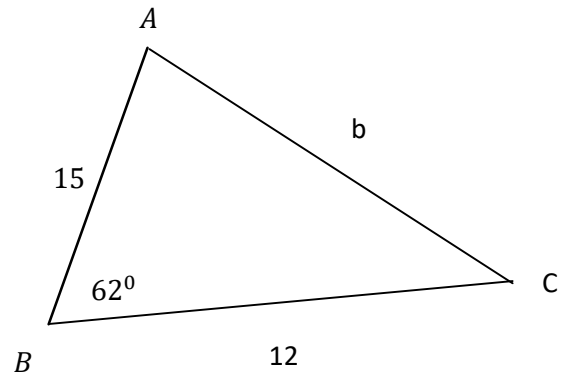
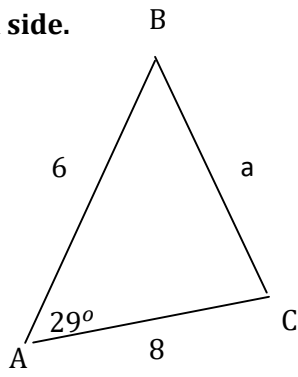


Find θ .

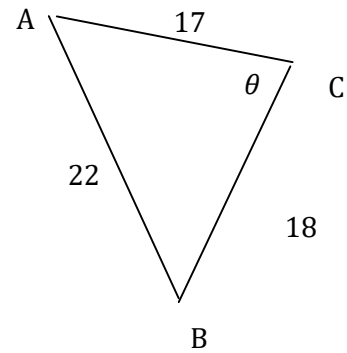
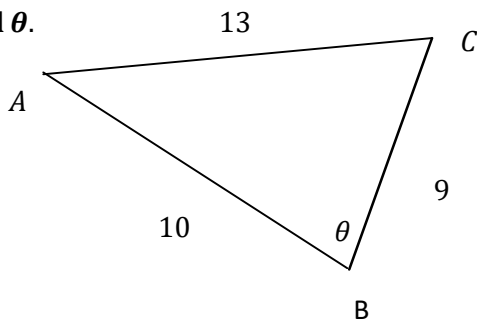


C11 - 2.10 - Cosine Law HW

Find the third side.

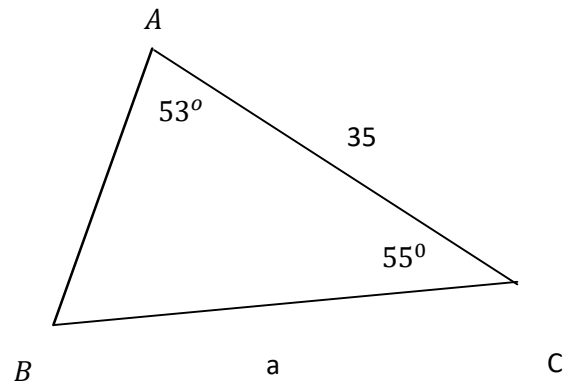
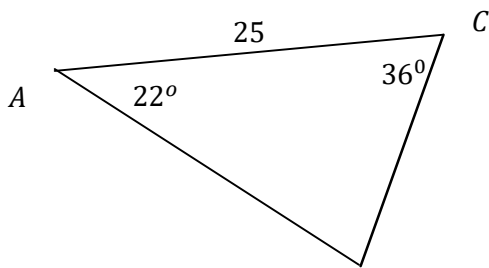
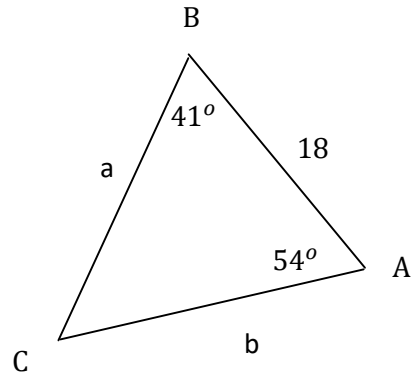
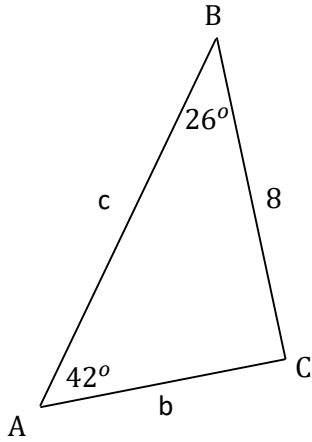


Find θ .



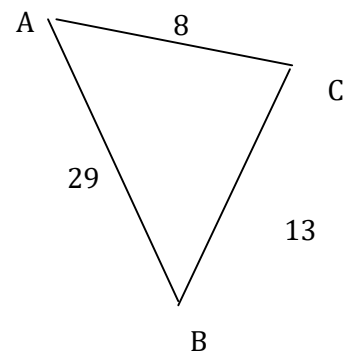
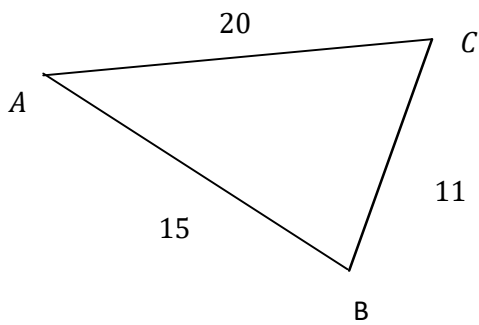
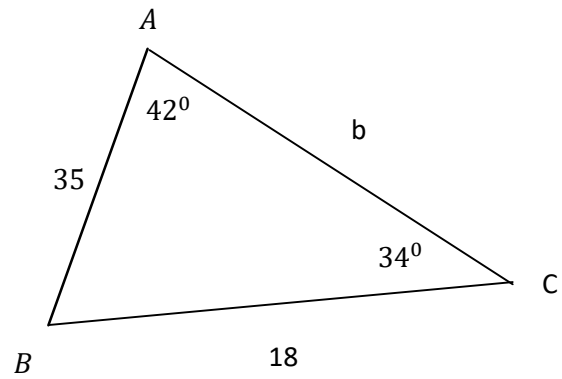
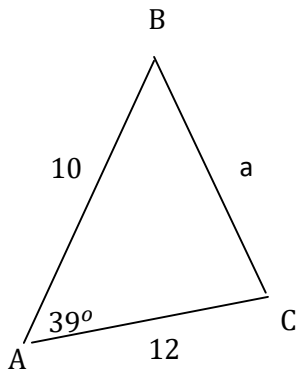
C11 - 2.11 - Solve the Triangle Sine Law 180° HW

Solve the triangle.



C11 - 2.11 - Solve Triangle Cosine/Sine Law HW

Solve the triangle.



C11 - 2.12 - ASS Sine Law HW

How many triangles? Solve the triangles.

$$\angle A = 30^\circ, b = 10, a = 5$$

$$\angle A = 30^\circ, b = 10, a = 4$$

$$\angle A = 30^\circ, b = 10, a = 12$$

$$\angle A = 30^\circ, b = 10, a = 6$$

$$\angle A = 120^\circ, b = 8, a = 10$$

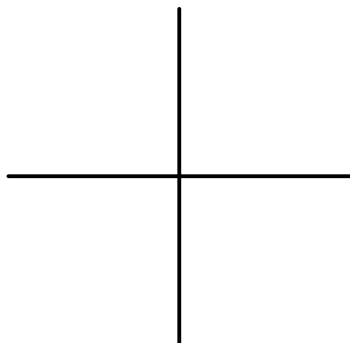
$$\angle A = 120^\circ, b = 8, a = 4$$

*C11 - 2.0 - Review

$$\sin^2 x - \sin x = 0$$

$$\sin^2 x + \sin x - 2 = 0$$

$$\theta_{stp} = 135, \theta_r = ?$$



$$\sin x =$$

$$\cos x =$$

$$\tan x =$$

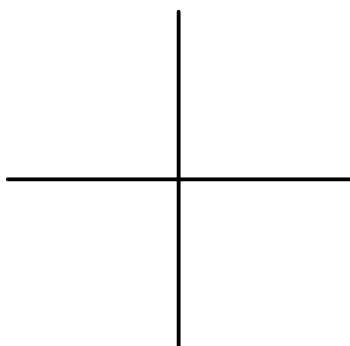
$$(-3,4)$$

$$\sin x =$$

$$\cos x =$$

$$\tan x =$$

$$\theta_{stp} =$$



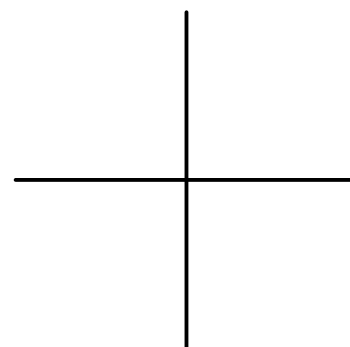
$$(1,0)$$

$$\sin x =$$

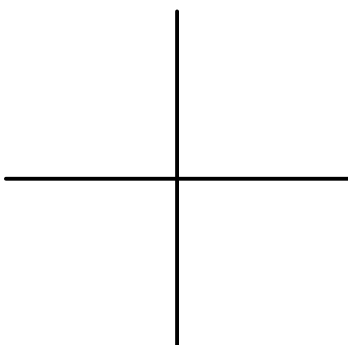
$$\cos x =$$

$$\tan x =$$

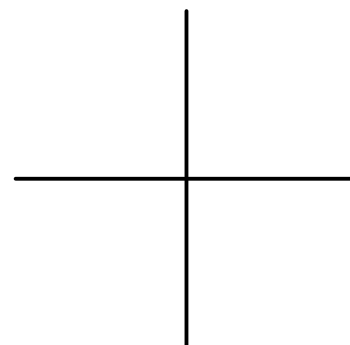
$$\theta_{stp} =$$



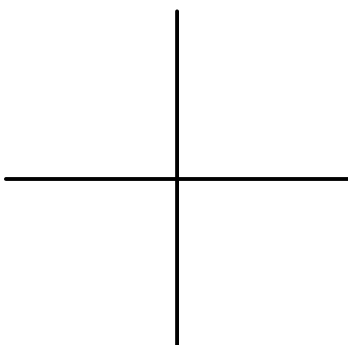
$$\sin 225 =$$



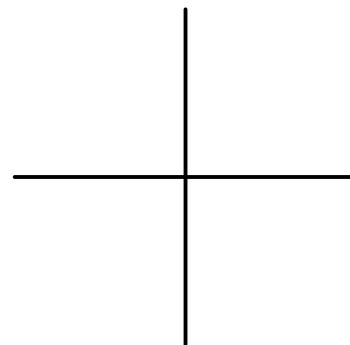
$$\cos x = -\frac{1}{2}$$



$$\tan x = 0.4$$



$$\cos \theta = 0$$

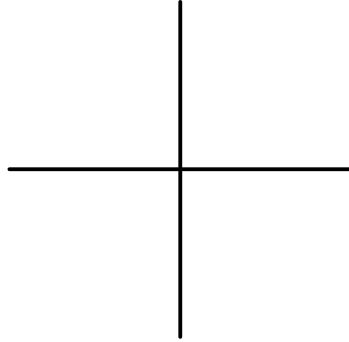


*C11 - 2.0 - Review

$$\sin^2 x - \sin x = 0$$

$$\sin^2 x + \sin x - 2 = 0$$

$$\theta_{stp} = 210, \theta_r = ?$$



$$\sin x =$$

$$\cos x =$$

$$\tan x =$$

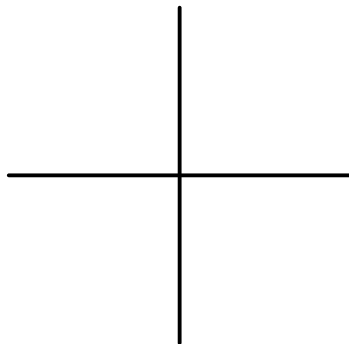
$$(-2,3)$$

$$\sin x =$$

$$\cos x =$$

$$\tan x =$$

$$\theta_{stp} =$$



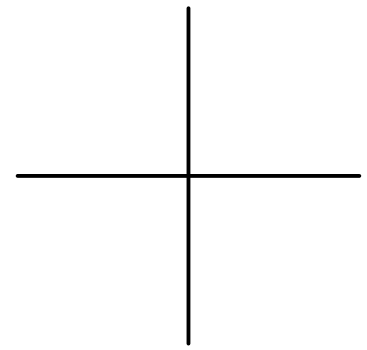
$$(0,1)$$

$$\sin x =$$

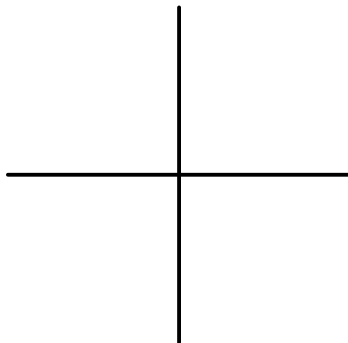
$$\cos x =$$

$$\tan x =$$

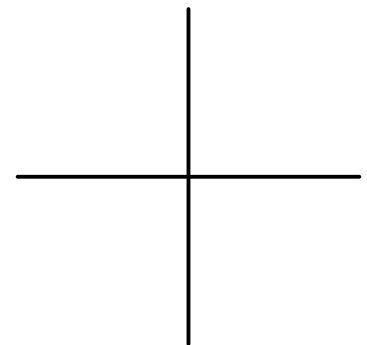
$$\theta_{stp} =$$



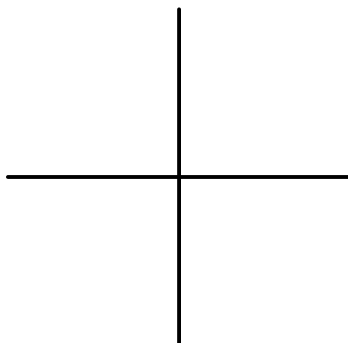
$$\cos 135 =$$



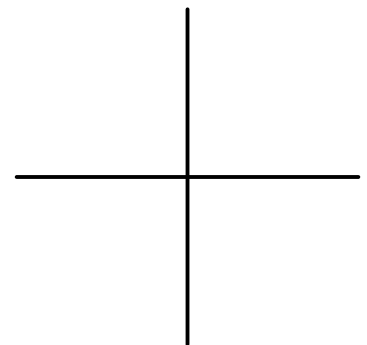
$$\sin x = -\frac{1}{2}$$



$$\tan x = -0.6$$

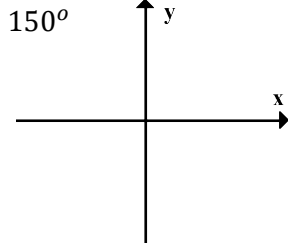


$$\sin \theta = 1$$

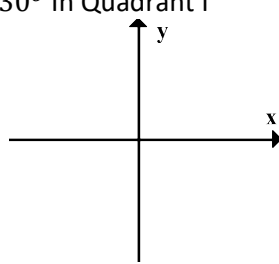


ASTC Review

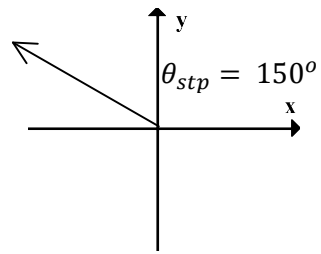
Sketch θ_{stp} .



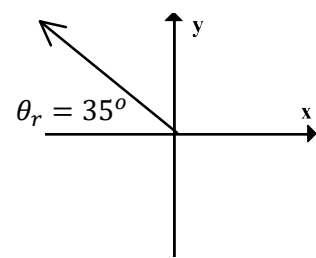
Sketch θ_r
 30° In Quadrant I



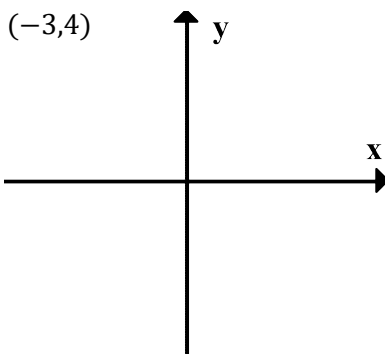
Find θ_r for each θ_{stp}



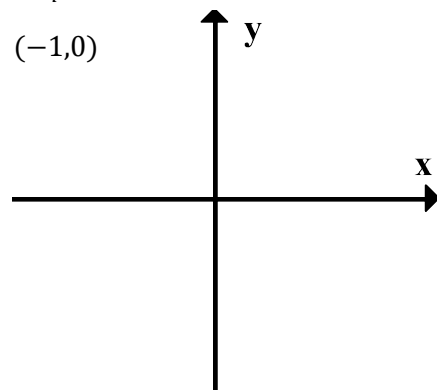
Find θ_{stp} for each θ_r



Find $\sin x$, $\cos x$, and $\tan x$ for the following points. And θ_{stp}



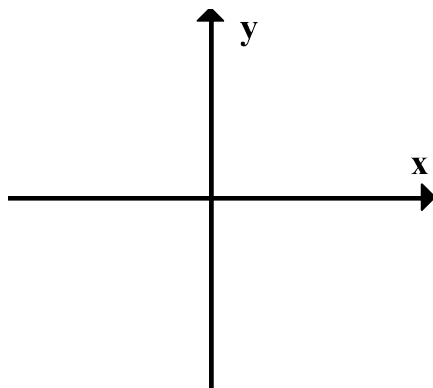
$\sin x =$
 $\cos x =$
 $\tan x =$
 $\theta_{stp} =$



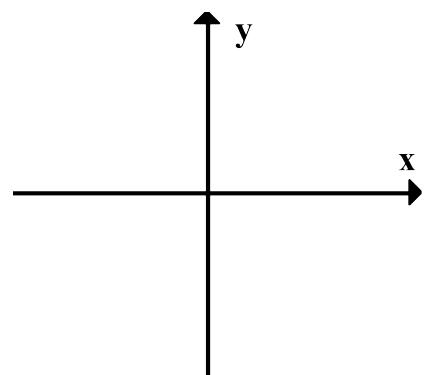
$\sin x =$
 $\cos x =$
 $\tan x =$
 $\theta_{stp} =$

Solve for x , $0 \leq x < 360$, answer should say $x =$

$\sin x = -\frac{1}{2}$



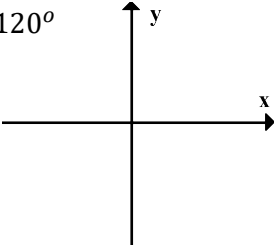
$\cos x = -\frac{1}{\sqrt{2}}$



ASTC Review

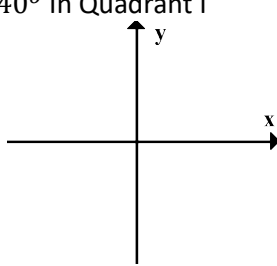
Sketch θ_{stp} .

120°

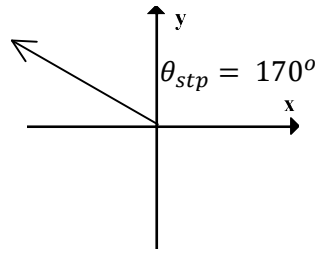


Sketch θ_r .

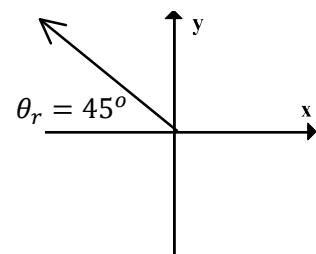
40° In Quadrant I



Find θ_r for each θ_{stp}

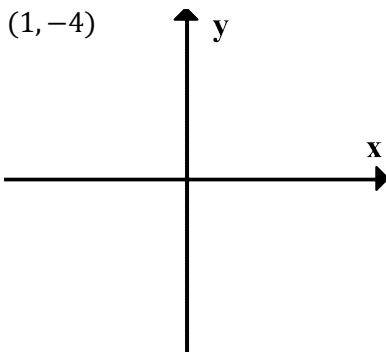


Find θ_{stp} for each θ_r



Find $\sin x$, $\cos x$, and $\tan x$ for the following points. And θ_{stp}

$(1, -4)$



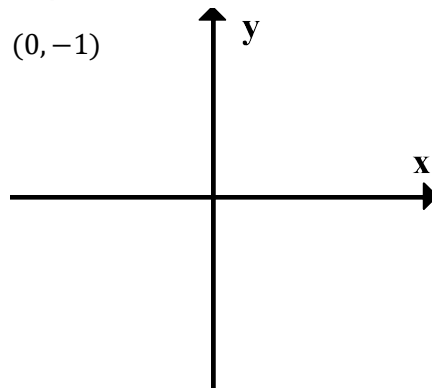
$$\sin x =$$

$$\cos x =$$

$$\tan x =$$

$$\theta_{stp} =$$

$(0, -1)$



$$\sin x =$$

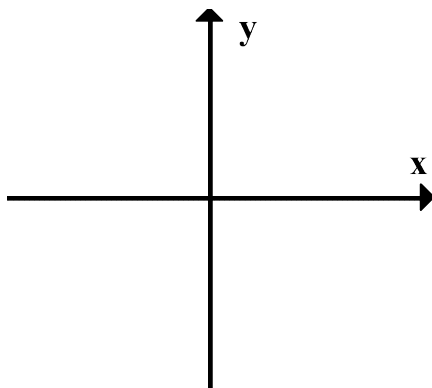
$$\cos x =$$

$$\tan x =$$

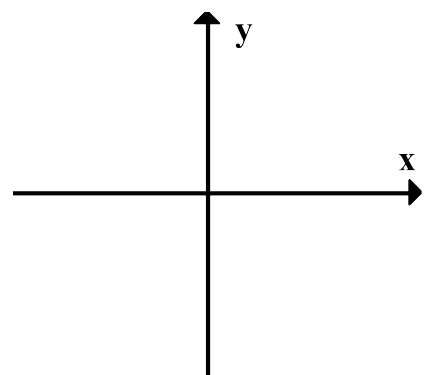
$$\theta_{stp} =$$

Solve for x , $0 \leq x < 360$, answer should say $x =$

$$\cos x = -\frac{\sqrt{2}}{2}$$

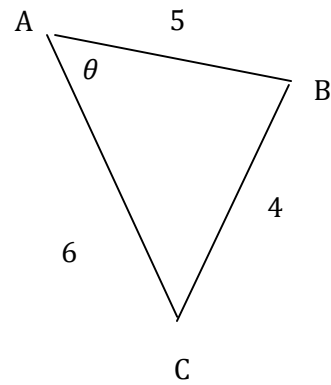
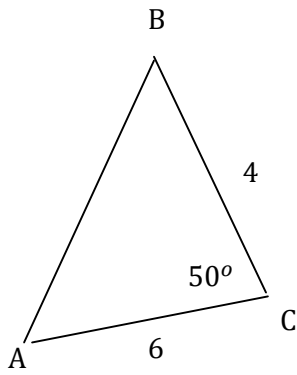
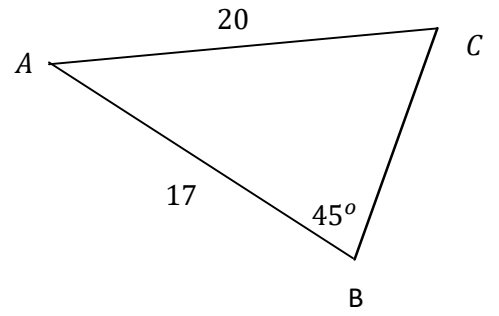
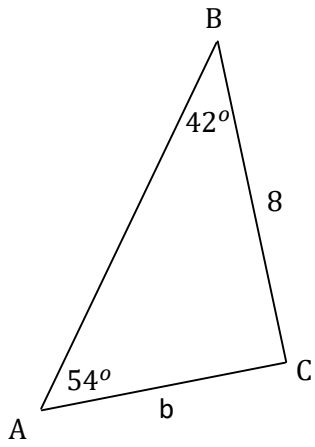


$$\tan x = -\sqrt{3}$$



Rationalize!

Sine/Cosine Law Review



Sine/Cosine Law Review

