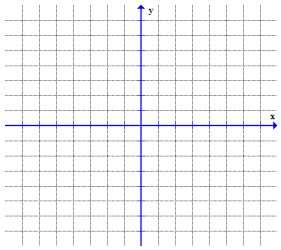
Pre-Calculus 11

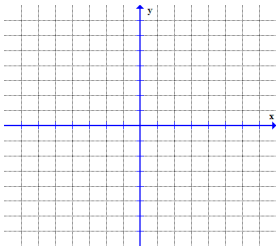
Name:_____
Block:_____

Chapter 2 Mid-Unit Review
Trigonometry Assignment

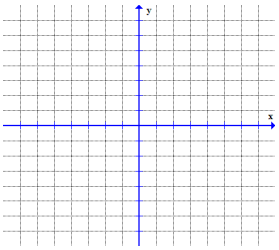
1. Draw a sketch of each angle in standard position and find the reference angle.

a) 

$\theta = 300^0$

b) 

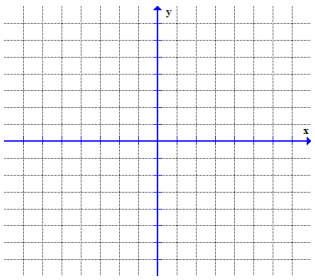
$\theta = 200^0$

c) 

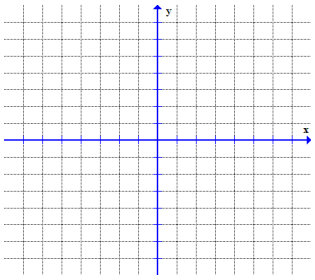
$\theta = 27.5^0$

2. Determine the angle in standard position when 55^0 is reflected:

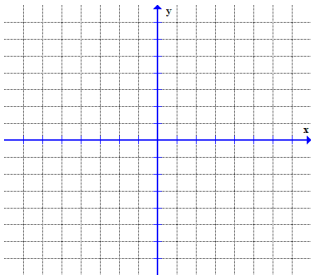
a) in the x-axis



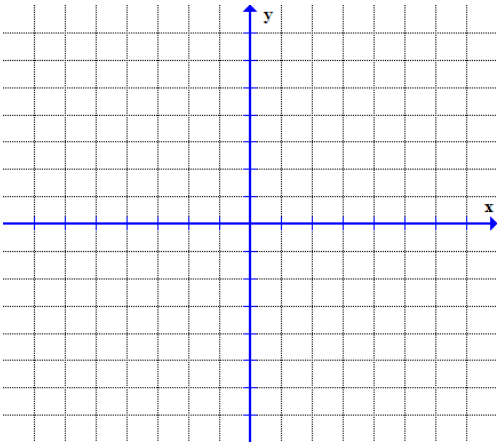
b) in the y-axis



c) in the y-axis and the x-axis



3. The point P(3,-4) lies on the terminal arm of an angle θ, in standard position. Determine the exact trigonometric ratios for $\sin\theta$, $\cos\theta$ and $\tan\theta$.

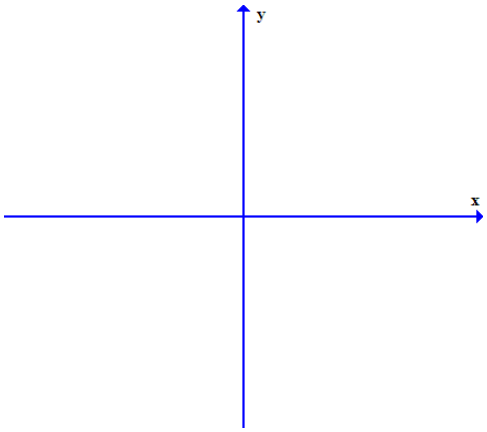


$\sin\theta =$

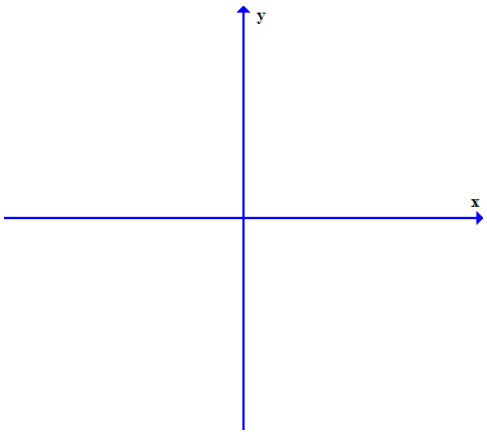
$\cos\theta =$

$\tan\theta =$

4. Determine the exact value of $\sin 315°$

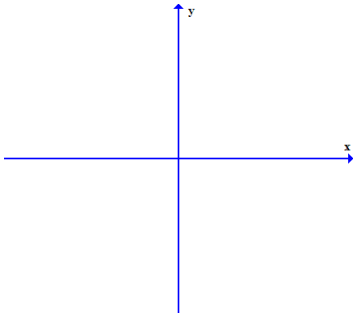


5. Determine the exact value of $\tan 210°$



6. Determine the exact value of the sine, cosine and tangent values for each ratio.

a) 360^0

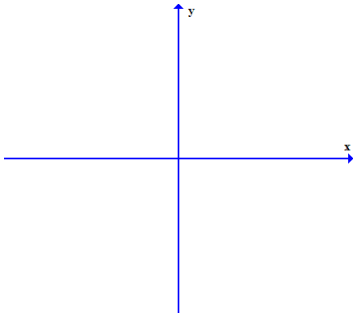


$\sin 360^0 =$

$\cos 360^0 =$

$\tan 360^0 =$

b) 90^0

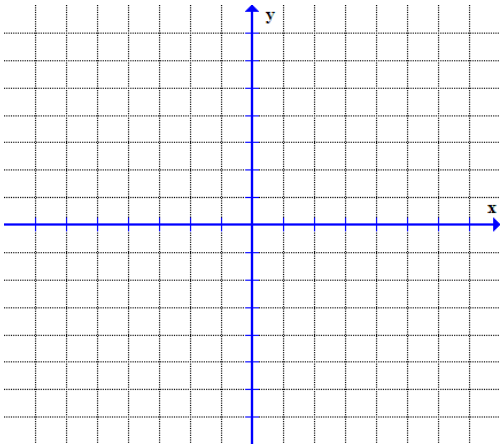


$\sin 90^0 =$

$\cos 90^0 =$

$\tan 90^0 =$

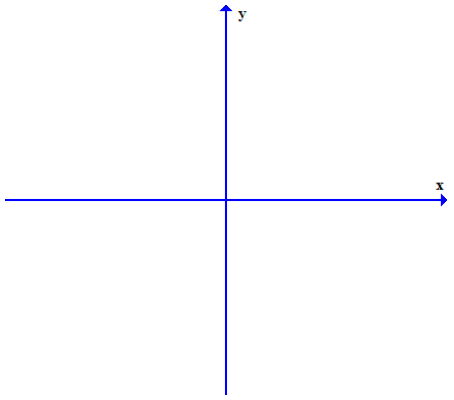
7. Suppose θ is an angle in standard position with a terminal arm in quadrant 4, $\sin\theta = \frac{-2}{5}$. What is the exact value of $\cos\theta$ and $\tan\theta$.



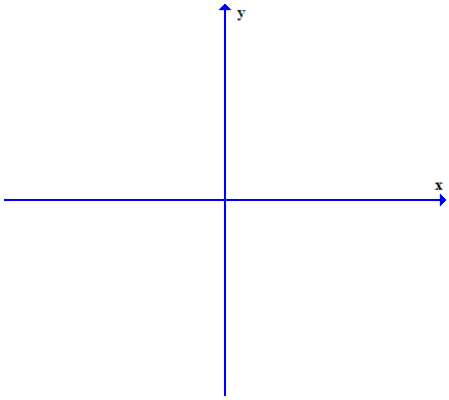
$\cos\theta =$ $\tan\theta =$

8. Solve for θ.

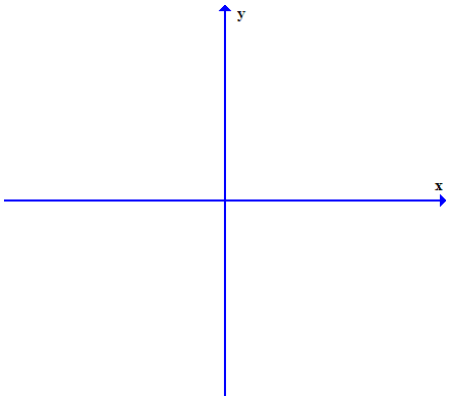
a) $\cos\theta = \frac{1}{2}$ $0° \leq \theta < 360°$



a) $\tan\theta = -1$ $0° \leq \theta < 360°$

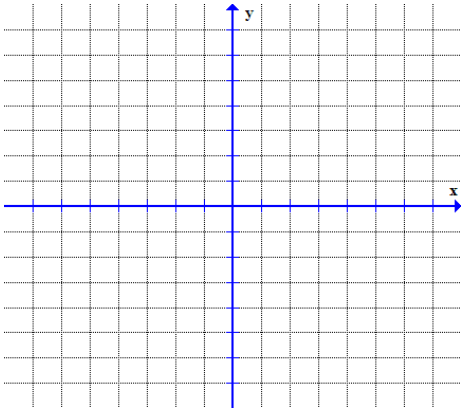


a) $\sin\theta = \frac{-\sqrt{3}}{2}$ $0° \leq \theta < 360°$



9. Point P(7,-4) is on the terminal arm of an angle θ.

a) Sketch the angle in standard position.



b) State the reference angle

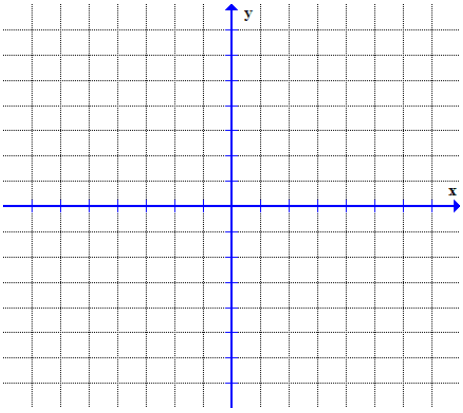
$\theta_R =$

c) State the angle θ

$\theta =$

10. Point P(-4,-4) is on the terminal arm of an angle θ.

a) Sketch the angle in standard position.



b) State the reference angle

$\theta_R =$

c) State the angle θ

$\theta =$

11. Without using a calculator, state whether each ratio is positive or negative.

a) $\sin 80^0$

b) $\tan 345^0$

c) $\cos 181^0$

d) $\tan 280^0$

e) $\sin 165^0$

12. Without using technology, determine whether each statement is true or false. Prove you answer.

a) $\cos 135^0 = \sin 225^0$

b) $\tan 135^0 = \tan 225^0$

c) $\sin 60^0 = \cos 330^0$