Exam I

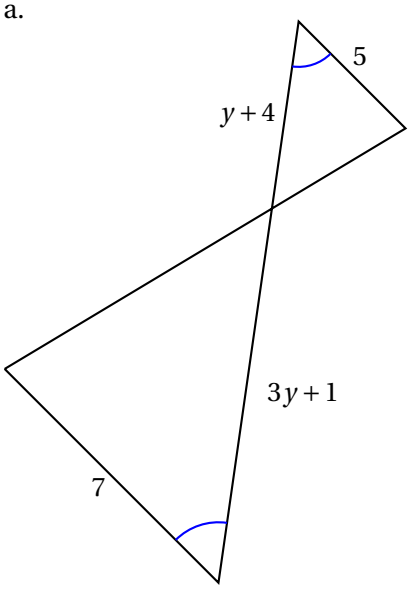
1. [5 points] Convert $41.324°$ into Degrees Minutes Seconds.

2. [5 points] Calculate the $56°12'48" + 12°30'20"$.

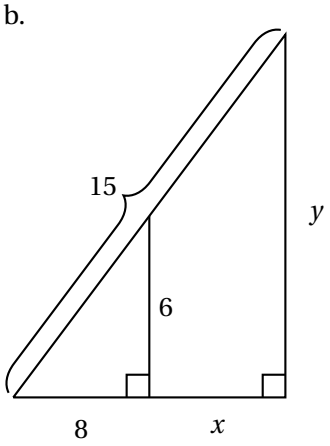
3. [5 points] Find the complimentary angle to $12°30'$.

4. [12 points/ea] Solve for the unknown variables for each pair of *similar* triangles.

a.

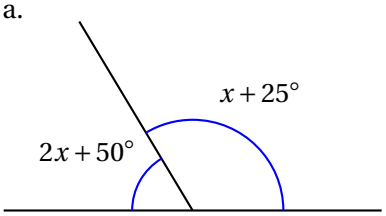


b.

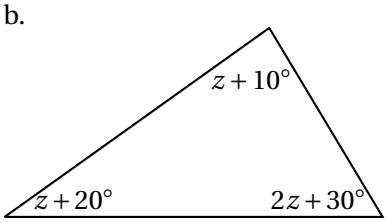


5. [8 points/ea] Solve for the unknown variables in the following figures.

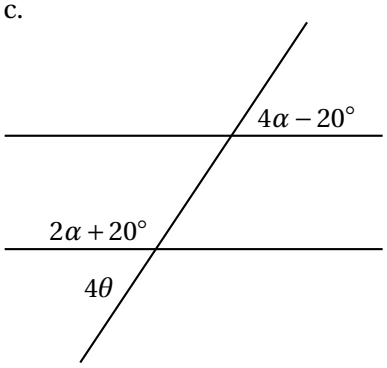
a.



b.



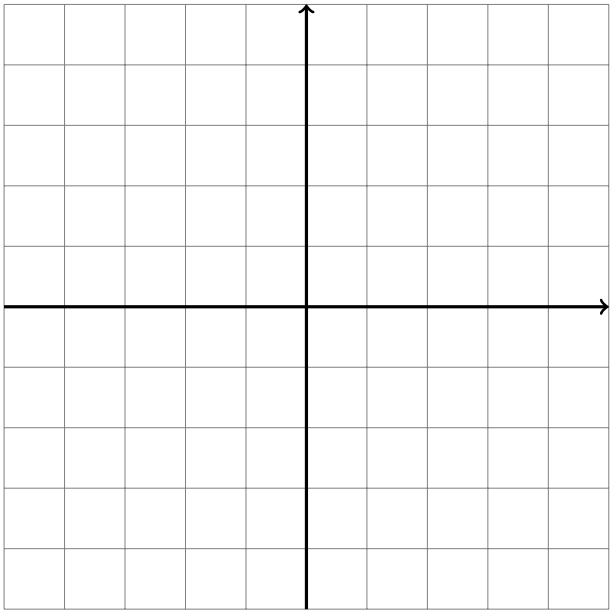
c.



6. [10 points] Sketch the angle θ CCW from the positive x-axis where the terminal side goes through the point below. Then fill in the values for the six trigonometric functions.

Trig functions	
$\sin\theta$	
$\cos\theta$	
$\tan\theta$	
$\csc\theta$	
$\sec\theta$	
$\cot\theta$	

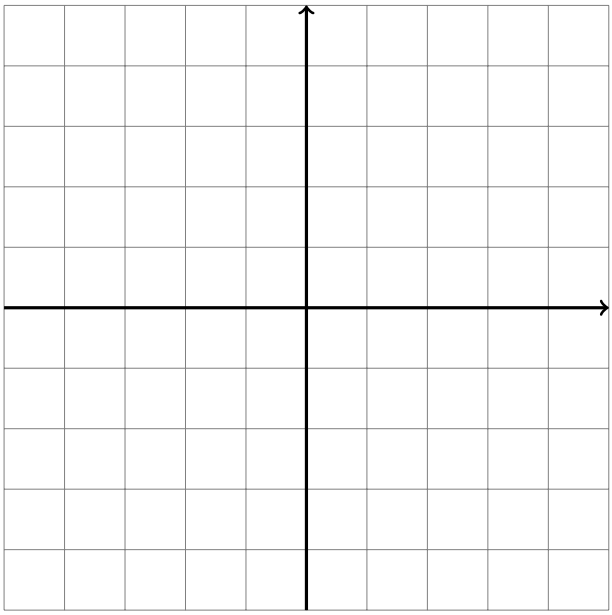
Point $(2,-5)$



7. [11 points] Sketch the line described below and fill in the values for the six trigonometric functions.

Trig functions	
$\sin\theta$	
$\cos\theta$	
$\tan\theta$	
$\csc\theta$	
$\sec\theta$	
$\cot\theta$	

$5y+2x=0$ with $x\le 0$



8. [8 points/ea] Fill in the table of with all of the trigonometric function values with the information given.

$$\cos\theta = \frac{3}{4} \text{ with } \theta \text{ in quadrant IV}$$

$\sin\theta$	$\cos\theta$	$\tan\theta$	$\csc\theta$	$\sec\theta$	$\cot\theta$
	$\frac{3}{4}$				

$$\sin\theta = \frac{-2}{3} \text{ with } \cos\theta > 0$$

$\sin\theta$	$\cos\theta$	$\tan\theta$	$\csc\theta$	$\sec\theta$	$\cot\theta$
$\frac{-2}{3}$					