4.8A Vectors

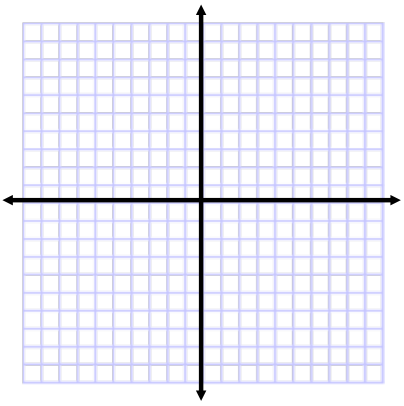
AP Precalculus

Name: _____

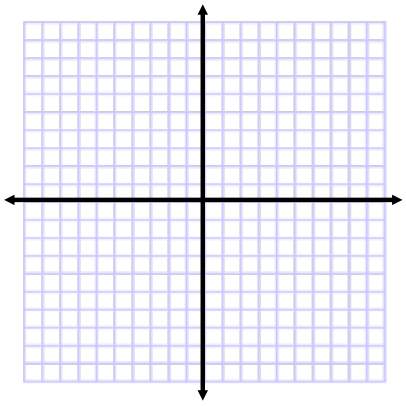
CA #1

Instructions: Graph each vector from the origin. Find the magnitude.

1) $< 5, -6 >$



2) $< -4, -7 >$



Directions: Use the following vectors to simplify the following expressions.

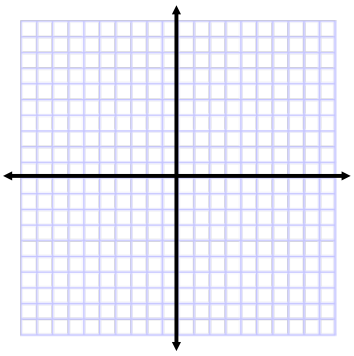
$\boldsymbol{u} = < 2, 8 >, \boldsymbol{v} = < -4, -9 >$

3) $4\mathbf{v} - 2\mathbf{u}$

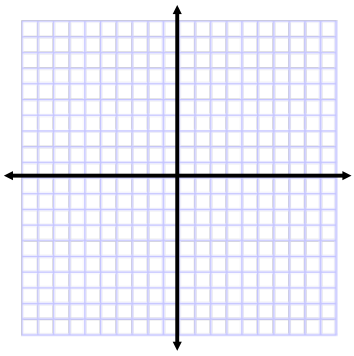
4) $6\mathbf{u} + 2\mathbf{v}$

Directions: Add the vectors graphically.

5) $< 5, 8 > + < 2, -5 >$



6) $< 3, -4 > + < -7, 5 >$



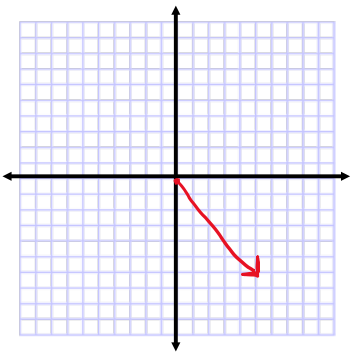
Directions: Find the components of the vector given the magnitude and direction.

7) $\|\mathbf{w}\| = 40, \theta = 145°$

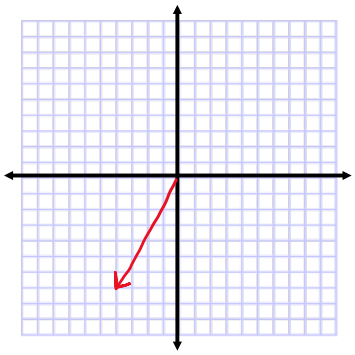
8) $\|\mathbf{w}\| = 8, \theta = 25°$

ANSWERS

1)



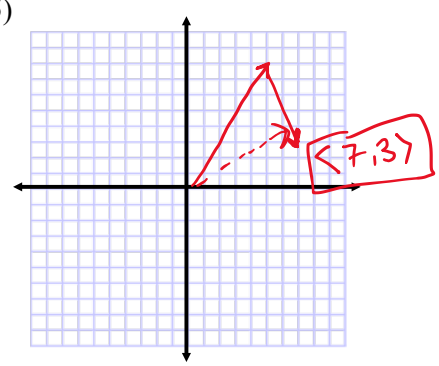
2)



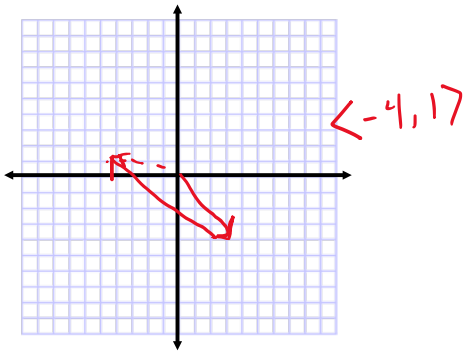
3) < -20, -52 >

4) < 4, 30 >

5)



6)



7) < -32.77, 22.94 >

8) < 7.25, 3.38 >