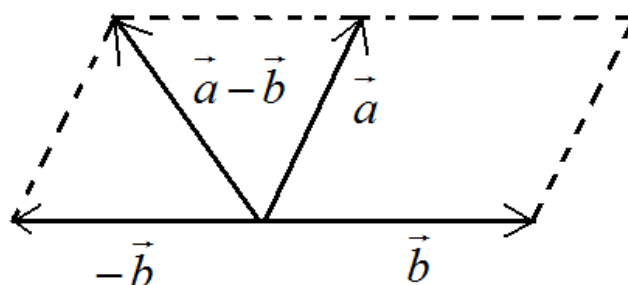


Name: _____

Vectors in the Plane

Exercise 1: Given the diagram below with $\vec{a}\langle 4,10\rangle, -\vec{b}\langle -8,4\rangle$



- 1) Find $\vec{a} - \vec{b}$
- 2) Find \vec{b}
- 3) Find $\vec{a} + \vec{b}$
- 4) Is it true that $\vec{a} + \vec{b} = -(\vec{a} + \vec{b})$
- 5) Is it true that the difference $\vec{b} - \vec{a}$ could be introduced as the sum of $\vec{b} + (-\vec{a})$

Exercise 2: Find the component form of v where $u = 2i - j$ and $w = i + 2j$:

- | | |
|------------------------------|-------------------------------|
| 1) $v = \frac{3}{2}u$ | 2) $v = \frac{3}{4}w$ |
| 3) $v = u + 3w$ | 4) $v = -u + w$ |
| 5) $v = u - 3w$ | 6) $v = -2u - 5w$ |
| 7) $v = \frac{1}{2}(3u + w)$ | 8) $v = \frac{1}{3}(4u + 5w)$ |