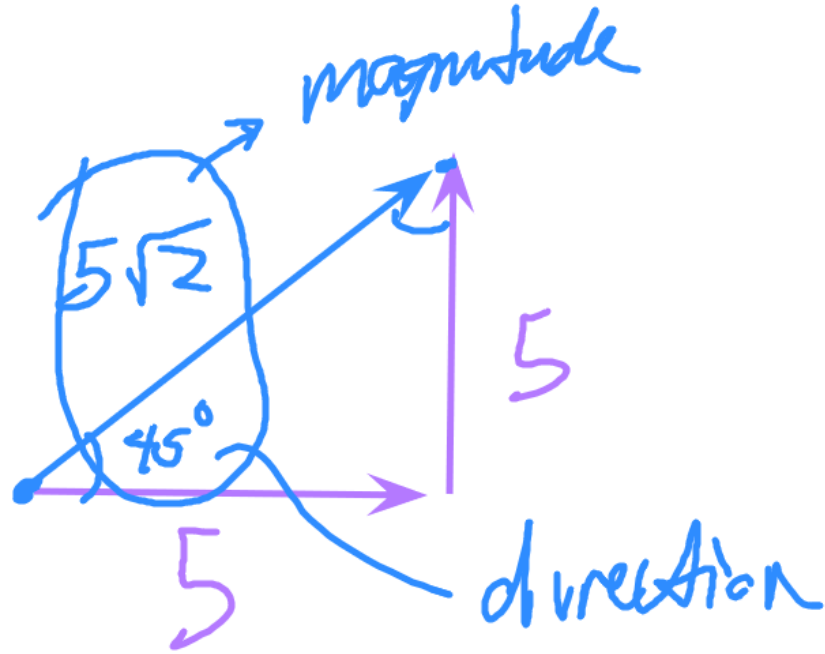
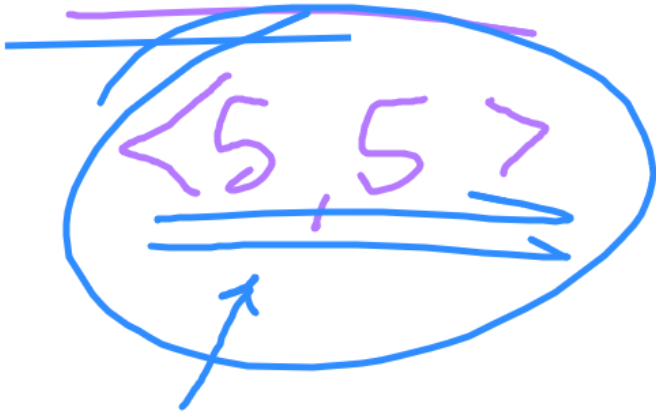
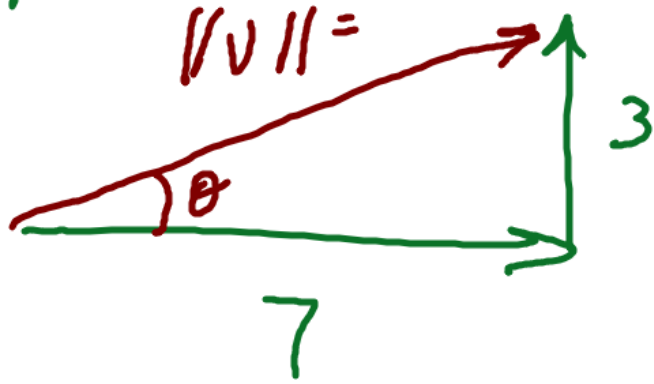


Bishop



$$v = \langle 7, 3 \rangle$$



$$\sqrt{7^2 + 3^2} = \sqrt{58}$$

VECTORS

COMMUTATIVE



ADD

$$A = \langle 4, 2 \rangle$$

$$B = \langle -3, 5 \rangle$$

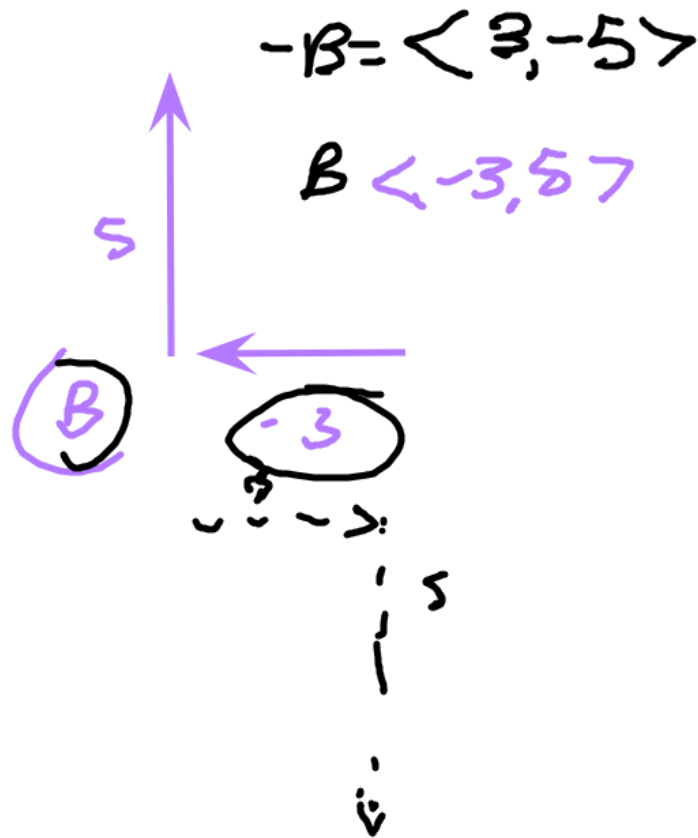
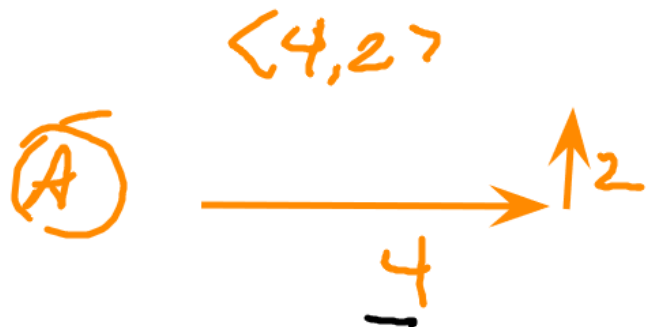
$$B + A = \langle -3 + 4, 5 + 2 \rangle$$

$$\langle 1, 7 \rangle$$

$$A + B = \langle 4 + (-3), 2 + 5 \rangle$$

$$\langle 1, 7 \rangle$$

SUBTRACT



$$A - B = A + (-B)$$

$$= \langle 4, 2 \rangle + \langle 3, -5 \rangle$$

$$= \langle 7, -3 \rangle$$

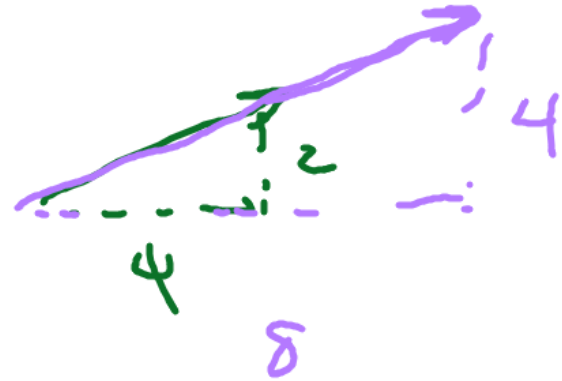
$$A = \langle 4, 2 \rangle \quad B = \langle -3, 5 \rangle$$

$$2A - 5B =$$

$$\langle 8, 4 \rangle - \langle -15, 25 \rangle$$

$$\langle 8 + 15, 4 - 25 \rangle$$

$$\langle 23, -21 \rangle$$



pg 419

Unit Vector

Vector that is 1 unit long

Unit vectors in the x, y direction

$$x: i \quad \langle 1, 0 \rangle$$

$$y: j \quad \langle 0, 1 \rangle$$

$$\langle 3, 2 \rangle$$

↙

$$3i + 2j$$

$$u = \underline{3i} + \underline{2j}$$

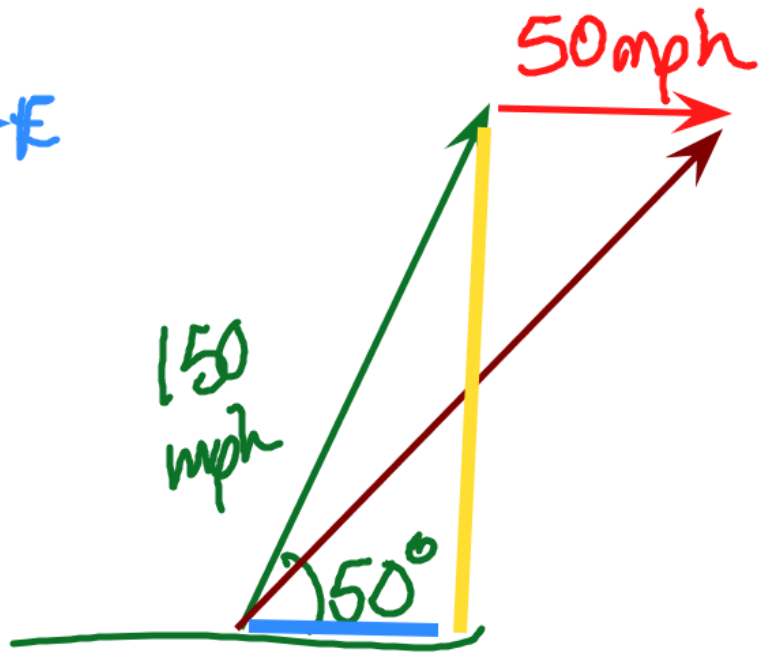
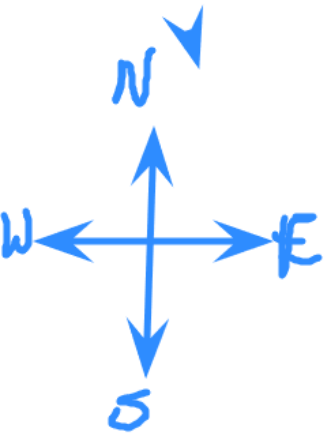
$$v = 5i - j$$

$$2u - 3v = 2(3i + 2j) - 3(5i - j)$$

$$= 6i + 4j - 15i + 3j$$

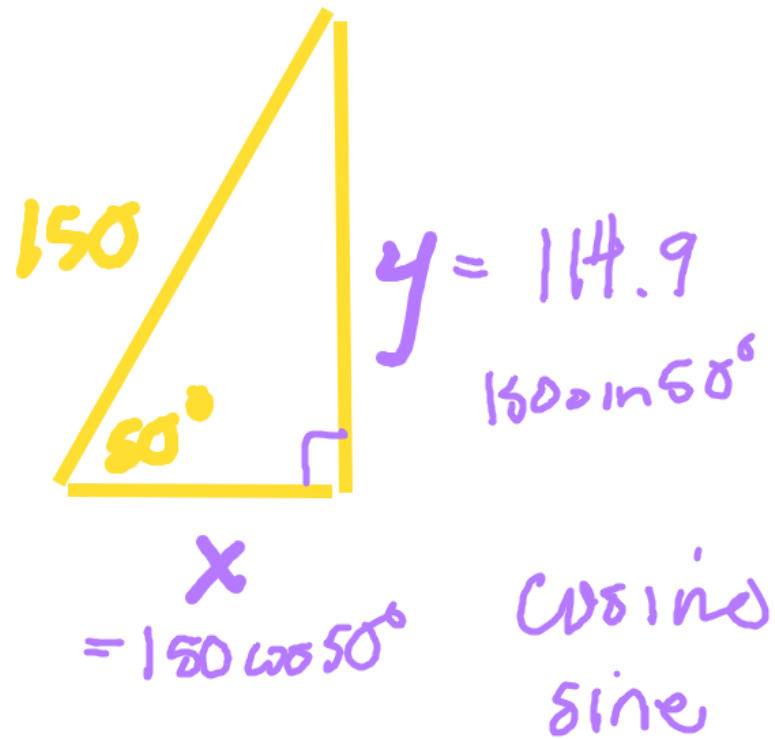
$$= -9i + 7j$$

$$\langle -9, 7 \rangle$$

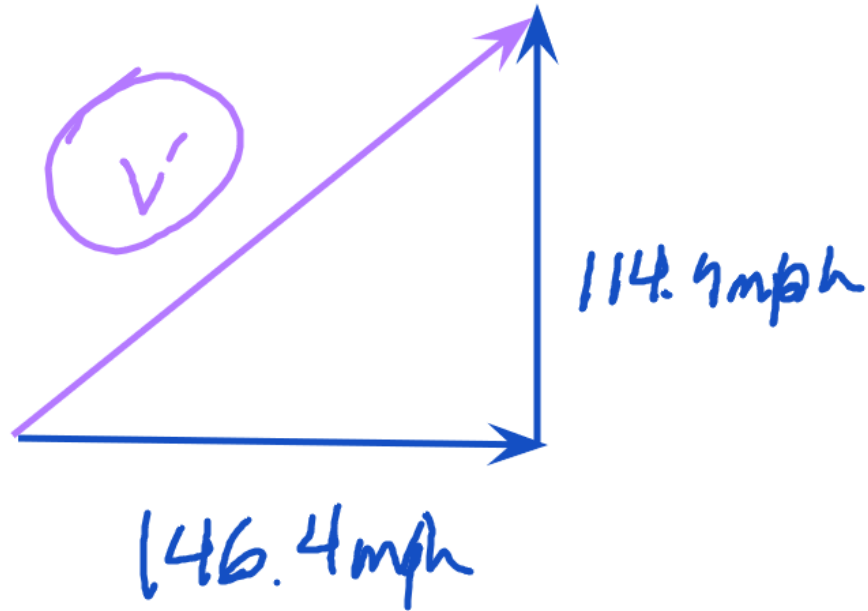


$$\vec{p} = \underline{96.4i + 114.9j}$$

$$\begin{aligned} \vec{w} &= \langle 50, 0 \rangle \\ &= \underline{50i} \end{aligned}$$



$$\begin{aligned} \vec{p} + \vec{w} &= 146.4i + 114.9j \\ &= \underline{\hspace{10em}} \end{aligned}$$



$$\underline{V = 185.8 \text{ mph}}$$

6.3A

pg 425 9-29 odd, 36,
37-43 odd,
→ 55, 57, 62, 63

6.3B

KLUVA w/s
Vector Ops

Thursday April 30

11:00 PM class