$\langle 7,-3\rangle$ $\langle -4,6\rangle$

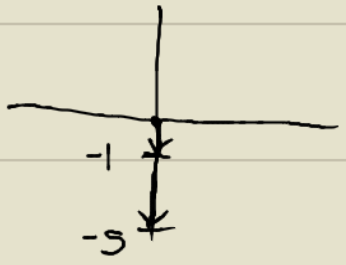
8. $v = 7i - 3j$ $w = -4i + 6j$

$5v - 3w = 5(7i - 3j) - 3(-4i + 6j)$

$= 35i - 15j + 12i - 18j$

$= \boxed{47i - 33j}$

9. $v = -5j$



$u = \frac{v}{\|v\|}$

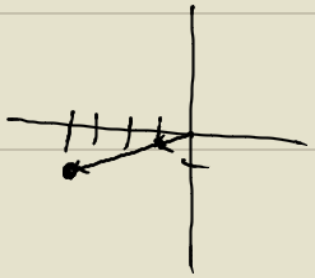
$u = \frac{-5j}{\sqrt{(-5)^2}}$

$= \frac{-5j}{\sqrt{25}}$

$= \frac{-5j}{5}$

$\boxed{u = -j}$

10. $v = -4i - j$



$u = \frac{v}{\|v\|}$

$= \frac{-4i - j}{\sqrt{(-4)^2 + (-1)^2}}$

$= \frac{-4i - j}{\sqrt{16+1}}$

$= \frac{-4i - j}{\sqrt{17}}$

$= \frac{-4}{\sqrt{17}}i - \frac{1}{\sqrt{17}}j$

$= \boxed{\frac{-4\sqrt{17}}{17}i - \frac{\sqrt{17}}{17}j}$