Suppose you have three vector valued variables u, v, w:

$$u = \begin{bmatrix} u_1 \\ u_2 \\ u_3 \end{bmatrix}, \; v = \begin{bmatrix} v_1 \\ v_2 \\ v_3 \end{bmatrix}, \; w = \begin{bmatrix} w_1 \\ w_2 \\ w_3 \end{bmatrix}.$$

Your code implements the following:

for j = 1:3,

u(j) = 2 * v(j) + 5 * w(j);

end

How would you vectorize this code?

- u = 2 * v' * v * w + 5 * w' * w * v; (where v' denotes the transpose of v)
- u = 2 * v + 5 * w

Correct

- u = 5 * v + 2 * w
- u = 2 + v + 5 + w