

## Vectors multiplication

$$b = [2; 4; 6];$$

$$v = [1; 2; 3];$$

Solution

$$v * b' = \begin{array}{ccc} 1 & 2 & 4 & 6 \\ 2 & 4 & 6 & \\ 3 & 6 & 12 & 18 \end{array}$$

Diagram illustrating the dot product calculation. The first row of the result matrix is 1, 2, 4, 6. The second row is 2, 4, 6. The third row is 3, 6, 12, 18. Arrows indicate the multiplication of the first row by the second and third rows. The word "ضرب" (multiplication) is written above the first row.

$$v' * b = 1(2) + 2(4) + 3(6) = 26$$

Diagram illustrating the dot product calculation. The first row of the result matrix is 1, 2, 3. The second row is 2, 4, 6. Arrows indicate the multiplication of the first row by the second and third rows.