

Test N°3: Vectors in MATLAB



Exercise N°1

Define each vector of the following equations in three different ways :

$$\begin{aligned}
 V_1(x) &= \{8 \ 1 \ 7 \ 0\} & V_4(x) &= \{4 \ -2 \ 14 \ 9\} \\
 V_2(x) &= \{11 \ 2 \ 0 \ 1 \ 7\} & V_5(x) &= \{13 \ 4 \ -3 \ 3 \ -6\} \\
 V_3(x) &= \{8 \ 5 \ 9 \ -1 \ 7 \ 14\} & V_6(x) &= \{-3 \ 10 \ 7 \ 2 \ 5 \ 11\}
 \end{aligned} \tag{1}$$

Exercise N°2

Apply the $\text{linspace}(x_i, x_f, N)$ function to define each vector of the following equations :

$$\begin{aligned}
 V_1(x) &= \{0 \ 2 \ 4 \ 6\} & V_4(x) &= \{-1 \ -2 \ -3 \ -4\} \\
 V_2(x) &= \{1 \ 2 \ 3 \ 4 \ 5\} & V_5(x) &= \{-2 \ 0 \ 2 \ 4 \ 6\} \\
 V_3(x) &= \{3 \ 6 \ 9 \ 12 \ 15 \ 18\} & V_6(x) &= \{-3 \ -2 \ -1 \ 0 \ 1 \ 2\}
 \end{aligned} \tag{2}$$

Exercise N°3

Apply the $x_i : p : x_f$ function to define each vector of the following equations :

$$\begin{aligned}
 V_1(x) &= \{0 \ 2 \ 4 \ 6\} & V_4(x) &= \{-1 \ -2 \ -3 \ -4\} \\
 V_2(x) &= \{1 \ 2 \ 3 \ 4 \ 5\} & V_5(x) &= \{-2 \ 0 \ 2 \ 4 \ 6\} \\
 V_3(x) &= \{3 \ 6 \ 9 \ 12 \ 15 \ 18\} & V_6(x) &= \{-3 \ -2 \ -1 \ 0 \ 1 \ 2\}
 \end{aligned} \tag{3}$$