



1. Write or create the following vectors in MATLAB

N.B Before strating write in command windows “**format bank**”

$$a = \left\{ 3^2 \quad \frac{7}{4} \quad 2,25 \times 8,5 \quad 0,8 \quad \sin\left(\frac{5\pi}{8}\right) \quad e^2 \quad \cos(1,8\pi) \quad 2,1 \times 10^4 \quad \sqrt[3]{120+84} \right\}$$

$$b = \left\{ \sqrt{5,2^3} \quad 6,71 \times 10^3 \quad (3+5,1^2) \quad \cos 53^\circ \quad e^{2,3+1,7} \quad 15,8 \quad \sqrt[3]{90} \quad \frac{\sin\left(\frac{2\pi}{3}\right)}{\cos\left(\frac{3\pi}{14}\right)} \quad \tan 70^\circ \cos 20^\circ \quad \ln 14 \right\}$$

$$c = \{0,75 \times 5,2^{0,7} \quad 11,1 \quad \sqrt[3]{60} \quad \tan(10\pi/11) \quad \cos^2 5^\circ \quad 0,116\}$$

$$x = 3,4 \quad \text{and} \quad y = 5,8$$

$$d = \left\{ x+y \quad x^y \quad x \times y \quad y^2 \quad x \quad \frac{x}{y} \quad e^{x+y} \quad \sqrt{x \times y} \quad \ln \frac{x}{y} \quad \log_{10} \frac{y}{x} \quad \sqrt[3]{x^y} \quad \frac{y}{x} \right\}$$

2. Define the following vectors with **less number of commands**

$$m = \{4 \quad 4 \quad 4 \quad 4 \quad 4 \quad 4 \quad 4 \quad 4 \quad 4\}$$

$$s = \{5,9 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0\}$$

$$t = \{1 \quad 1 \quad 1 \quad 1 \quad 1 \quad 6,9\}$$

$$l = \{0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 8,1 \quad 8,1 \quad 8,1 \quad 8,1\}$$

$$r = \{-4 \quad -1 \quad 2 \quad 5 \quad 8 \quad 14 \quad 18 \quad 22 \quad 26 \quad 30\}$$

$$f = \{17 \quad 21 \quad 25 \quad 29 \quad 33 \quad 37 \quad 41 \quad 38 \quad 35 \quad 32 \quad 29\}$$

$$h = \{5 \quad 10 \quad 15 \quad 20 \quad 25 \quad 27 \quad 29 \quad 31 \quad 33\}$$

$$y = \{14 \quad 12 \quad 10 \quad 8 \quad 6 \quad 4 \quad 7 \quad 10 \quad 13\}$$





3. What will be displayed if the following commands are executed by MATLAB

$a = 2 : 2 : 20$	$b = a(4 : 8)$
$c = a(1 : 2 : 7)$	$d = a(8 : -1 : 4)$

4. Define the vector $v = [1 \ 3 \ 5 \ 7]$. Then use the vector in a mathematical expression to create the following vectors :

$a = [3 \ 9 \ 15 \ 21]$	$b = [1 \ 9 \ 25 \ 49]$	$c = [1 \ 1 \ 1 \ 1]$	$d = [6 \ 6 \ 6 \ 6]$
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