



Sheet (3)

[1] What are the functions of the following MATLAB commands:

- (a) linspace, logspace,
- (b) randint, rand
- (c) length, size,

[2] write the output of the given MATLAB commands:

- (1)(a) $A=[1\ 2\ 3\ 4\ 5\ 6\ 7\ 8\ 9\ 10]$, $B=[1; 2; 3; 4; 5; 6; 7; 8; 9; 10]$,
- (b) $A1=1:10$, $A2=linspace(1,10,10)$
 - (c) $length(A)$, $length(B)$,
 - (d) $B(11)=11$, $B(13)=13$,
 - (e) $B(11:13)=[11\ 12\ 13]$, $B([12\ 15])=[12\ 15]$
 - (f) $B(4)=20$, $B(7:10)=[1\ 1\ 1\ 1]$,
 - (g) $B(13)=[]$, $B(11:12)=[]$, $B([1,3])=[]$, $B([1\ 3])=[]$, $B(3:end)=[]$,
 - (h) $B=[1; 2; 3; 4; 5; 6; 7; 8; 9; 10]$; $B(7)$, $B(2:8)$, $B(2:2:8)$, $B([2,5])$, $B([2\ 5])$,
 $B(3:end)$, $B(3:2:end)$, $B(6:-2:1)$
 - (i) $max(B)$, $min(B)$,
 - (j) $x=[2\ 4\ 6]$; $x1=sum(x)$, $x2=prod(x)$,
- (2)(a) $X=(0:0.1:1)*pi$, $X=linspace(0, pi, 11)$,
- (b) $Y=sin(X)$
 - (c) $X(4)$, $Y(6)$
 - (d) $X(1:6)$, $X(7:end)$

(e) $Y(3:-1:1)$, $X(2:2:7)$

(f) $Y([8\ 2\ 9\ 1])$

(3)(a) $a=1:5$, $b=1:2:9$, $b-a$, $b+a$, $b.*a$, $b./a$, $b.\backslash a$

(b) $c=[b\ a]$

(c) $d=[a(1:2:5)\ 1\ 0\ 1]$, $d=[a([1\ 3\ 5])\ 1\ 0\ 1]$

(4)(a) $a=1:5$, $b=a'$, $c=b'$, $C=b.'$

(b) $d=a+j*a$, $e=d.'$, $f=d'$