MATLAB CODE:

```matlab
clear,clc;

h = 1
i = 2
j = 3
k = 4

a1 = h + i
a2 = j - k
a3 = h * j
a4 = i / k

b = h*(i/j - k)

x = 0.37128
c1 = sin(x)
c2 = cos(x)
c3 = tan(x)
c4 = exp(x)
c5 = log(x)


A = [ 1, 2, 3 ]
B = [ 4; 5; 6 ]

C = A/7

D = rand(1, 5)

E = [ 50, 22, 34; 41, 56, 64; 37, 48, 69 ]
F = E'
G = det(E)
H = inv(E)
I = E * B
J = dot( E, E )
K = pi * E
L = E(2, 2)
M1 = min(min(E))
M2 = max(max (E))

aa = 0;
for n = 1:50
    aa = aa +((-1)^(n+1))/(2*n - 1);
end
aa
bb = 0;
n = 1;
while n < 51
    bb = bb +((-1)^(n+1))/(2*n - 1);
    n = n+1;
end
bb
phi = bb
```

```
epsilon = (pi - phi)/pi

lims = 0:.0001:4*pi;
f = sin(2*pi*lims);
g = cos(2*pi*lims);
xlabel('Radians');
ylabel('Sinusoid  Values');
fplot = plot(f);
hold all
gplot = plot(g);
legend([fplot, 'sine'], [gplot,'cosine']);

print -djpeg test.jpg
```

OUTPUT

h =

     1

i =

     2

j =

     3

k =

     4

a1 =

     3

a2 =

    -1

a3 =

     3

a4 =

    0.5000

b =

   -3.3333

```
x =

    0.3713


c1 =

    0.3628


c2 =

    0.9319


c3 =

    0.3893


c4 =

    1.4496


c5 =

   -0.9908


A =

     1     2     3


B =

     4
     5
     6


C =

    0.1429    0.2857    0.4286
```

```
D =

    0.8147    0.9058    0.1270    0.9134    0.6324


E =

    50    22    34
    41    56    64
    37    48    69


F =

    50    41    37
    22    56    48
    34    64    69


G =

    2.5922e+04


H =

     0.0306    0.0044   -0.0191
    -0.0178    0.0846   -0.0697
    -0.0040   -0.0612    0.0732


I =

    514
    828
    802


J =

        5550        5924       10013


K =

   157.0796   69.1150   106.8142
```

```
    128.8053   175.9292   201.0619
    116.2389   150.7964   216.7699


L =

    56

M1 =

    22

M2 =

    69

aa =

    0.7804

bb =

    0.7804

phi =

    0.7804

epsilon =

    0.7516

EDU>>
```