Tutorial No 01

Ques 01

a. sqrt(6)

ans = 2.4495

power(2,1/2)

ans =

1.4142

(-2)^(1/2)

ans =

0.0 + 1.4142i

b. (5+9) / (7+8)

ans =

0.9333

10/0

ans =

Inf

0/5

ans =

0

1 + (1/0)

ans =

Inf

1/inf

ans =

0

0/0

ans =

NaN

c. 5^(10)

ans =

9765625

2^(10)

ans =

1024

7^(5)

ans =

16807

pi^(5)

ans =

306.0197

1.612^(2.12)

ans =

2.7518

d. exp(5)

ans =

148.4132

exp(-2)

ans =

0.1353

log(exp(-5))

ans =

-5

e. sin(pi/2)

ans =

1

sin(2\*pi/3)

ans =

0.8660

cos(55\*pi/33)

ans =

0.5000

cos(pi/2)

ans =

6.1232e-17

tan(2\*pi/3)^2

ans =

3.0000

cos(pi/3)^2

ans =

0.2500

sin(pi/8)^2

ans =

0.1464

tan(19)^2

ans =

0.0230

Ques 02

(35\*7\*64-7^3)/(45+5^2)

ans =

219.1000

((5/4)\*7\*(6^(2)))+(((3)^(7))/((9^(3))-652))

ans =

343.4026

((2+7)^(3))+(((273)^(2/3))/2)+(((55)^(2))/3)

ans =

1.7584e+03

(2^(3))+(7^(3))+((273^(3))/2)+(55^(3/2))

ans =

1.0174e+07

(((3^(7))\*log(76))/((7^(3))+546))+((910)^(1/3))

ans =

20.3444

43\*((250^(1/4))+23)^(2)/(exp(45-3^(2)))

ans =

7.2583e-12

(cos(5\*pi/6)^(2))\*((sin(7\*pi/8))^2)+(tan((pi\*log(8))/6))/(7^(1/2))

ans =

0.8323

((cos((5\*pi/6)^2))\*((sin((7\*pi)/8))^2))+(tan(pi\*log(8))/6)/((7)^(5/2))

ans =

0.1236

Ques 03

x=13.5;

a. x^3+(5\*x^2)-(26.7\*x)-52

ans =

2.9592e+03

b. x=13.5;

>> ((14\*x^(3))^(1/2))/(exp(3\*x))

ans =

4.7823e-16

c. log(abs((x^2)-(x^3)))

ans =

7.7311

Ques 04

x=9.6;

z=8.1;

a.(x\*(z^2))-((2\*z)/(3\*x))^(3/5)

ans =

629.1479

b. (443\*z)/(2\*(x^3))+(exp(-x\*z)/(x+z))

ans =

2.0279

Ques 05

a=15.62;

b=-7.08;

c=62.5;

d = 0.5\*((a\*b) - c);

a. a+((a\*b)/c)\*((a+d)^2)/((abs(a\*b))^1/2)

ans =

-145.3505

b. d\*exp(d/2)+(((a\*b)+(c\*d))/((20/a)+(30/b))/(a+b+c+d))

ans =

-120.3957

Ques 6

a. (2^5)/((2^5)-1)

ans =

1.0323

(1-(1/(2^5)))^(-1)

ans =

1.0323

b. (3\*((5^(1/2))-1)/(((5^(1/2))+1)^2))-1

ans =

-0.6459

c. r=(pi^(1/3))-1;

A=pi\*(r^2)

A =

0.6781

d. exp(3)

ans =

20.0855

log(exp(3))

ans =

3

log(exp(3))

ans =

3

log10(exp(4))

ans =

1.7372

log10(10^4)

ans =

4

exp(pi\*(163^(1/2)))

ans =

2.6254e+17

Ques 07

x=log(17)/log(3)

x =

2.5789

Ques 08

a. ((sin(pi/6))^(2))+((cos(pi/6))^(2))

ans =

1

b. x = 32\*pi;

y=(cosh(x)^(2))-(sinh(x)^(2))

y =

0

Ques 09

(1+3\*i)/(1-3i)

ans =

-0.8000 + 0.6000i

exp(i\*(pi/4))

ans =

0.7071 + 0.7071i

(cos(pi/4))+(i\*sin(pi/4))

ans =

0.7071 + 0.7071i

exp(i\*(pi/2))

ans =

0.0000 + 1.0000i

Ques 10

x=0:1:10;

y=(0.5\*x)-2;

t=[x;y];

fid=fopen('mat1.table','w');

fprintf(fid,'heading\n');

fprintf(fid,'%4f%8.3f\n',t);

fclose(fid);

heading

0.000000 -2.000

1.000000 -1.500

2.000000 -1.000

3.000000 -0.500

4.000000 0.000

5.000000 0.500

6.000000 1.000

7.000000 1.500

8.000000 2.000

9.000000 2.500

10.000000 3.000

x=0:1:10;

y=(0.5\*x);

t=[x;y];

plot(x,y);

xlabel('x-axis');

ylabel('y-axis');

title('y=mx+c graph');

