TUTORIAL 1

Question 1:

**MATLAB Program:**

h=input('Enter Height(h): ')   
d=25  
disp('Radius of Fustrum: ')  
R=23   
if h<=19  
 V=pi\*(d/2)^2\*h  
 disp(V)  
end  
if h>19 && h<=33  
 V=pi\*h\*(R^2+(d/2)^2+R\*(d/2))/3  
 disp(V)   
end

Question 2:

**MATLAB Program:**

disp('To find root of a quadratic equation')  
a=input('Enter value of a');  
b=input('entervalueofb');  
c=input('entervalueofc');  
D=(b^2-4\*a\*c)  
if D<0  
 disp(‘Solution does not exist’)  
else  
 x1 = (-b + sqrt(D))/(2\*a)  
 x2 = (-b - sqrt(D))/(2\*a)  
end

Question 3:

**MATLAB Program:**

n(1)=1;  
n(2)=1;  
k=3;  
while k<=20  
 n(k) = n(k-1) + n(k-2);  
 k=k+1;  
 disp(n)  
end

Question 4:

**MATLAB Program:**

n = input('Input a value for n: ')

s = 0

for i = 1 : n

s = s + sqrt(6\*1./ (i.^2));

     if s > pi

      fprintf( 'The sum %f is greater than π \n', s, );

     elseif s < pi

         fprintf( 'The sum %f is less than π \n', s, );

     else

fprintf( 'The sum %f is equal to π \n', s, );

    end

end

Question 5:

**MATLAB Program:**

y = [4.5, 5, -16.12, 21.8, 10.1, 10, -16.11, 5, 14, -3, 3, 2]:

n=length(y);

for i=1:n-1

A=y(i);

for j=i+1:n

if y(j)<A

A=y(j);

y(j)=y(i);

y(i)=A;

end

end

end

y