x = input('x = ');

y = input('y = ');

h = x(2)-x(1);

n = length(x);

A = 0;

for i = 2:n-1

A = A+2\*y(i);

end

I = (h/2) \* (y(1)+y(n)+A)

%%

x = input('x = ');

y = input('y = ');

h = x(2)-x(1);

n = length(x);

A = 0;

B = 0;

if mod(n-1, 2) == 0

for i = 2:2:n-1

A = A+4\*y(i);

end

for i = 3:2:n-1

B = B+2\*y(i);

end

I = (h/3)\*(y(1)+y(n)+A+B)

else

disp("2nd formula is not applicable")

end

%%

x = input('x = ');

y = input('y = ');

h = x(2)-x(1);

n = length(x);

if mod(n-1, 3) == 0

A = y(1) + y(n);

for i = 2:n-1

if mod(i-1,3)==0

A = A + (2\*y(i));

else

A = A + (3\*y(i));

end

end

I = ((3\*h)/8)\*A

else

disp("3rd formula is not applicable")

end