

x	y	Area	x	y	Area
0	0		0	0	
1	-3	-1.5	0.5	-2.25	-0.5625
2	0	-1.5	1	-3	-1.3125
3	9	4.5	1.5	-2.25	-1.3125
4	24	16.5	2	0	-0.5625
			2.5	3.75	0.9375
total		18	3	9	3.1875
			3.5	15.75	6.1875
			4	24	9.9375
					total 16.5

---

```
function SUM=intexample(k)

SUM=0;

increment=4/k;

x(1)=0;
y(1)=0;

for i=2:(k+1)
    x(i)=x(i-1)+increment;
    y(i)=3*(x(i)^2)-6*x(i);
    SUM=SUM+0.5*(y(i)+y(i-1))*(x(i)-x(i-1));
end
```

Not enough input arguments.

Error in intexample (line 5)  
increment=4/k;

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normdist.m    Activity.m    +

```
1 function SUM = normdist(limit, k)
2     lower = -limit;
3     upper = limit;
4     inc = (upper-lower)/k;
5     SUM=0;
6     x(1)=lower;
7     y(1)=1/sqrt(2*pi)*exp(-x(1)^2/2);
8
9 for i=2:(k+1)
10    x(i)=x(i-1)+inc;
11    y(i)=1/sqrt(2*pi)*exp(-x(i)^2/2);
12    SUM=SUM+.5*(y(i)+y(i-1))*(x(i)-x(i-1));
13 end
14
15
16
```

New to MATLAB? See resources for [Getting Started](#).

```
>> format long
>> normdist(3,100)

ans =

0.997292229481189

>> normdist(3,1000)

ans =

0.997300124163755

>> normdist(6,1000)

ans =

0.999999998025951

>> normdist(6,10000)

ans =

0.999999998026819

>> normdist(6,100)

ans =

0.999999997940018

>> normdist(5,100)

ans =

0.999999414352763
```

normdist.m Activity.m +

1 function SUM = normdist(Z)  
2 lower = -6;  
3 upper = Z;  
4 inc = (upper-lower)/1000;  
5 SUM=0;  
6 x(1)=lower;  
7 y(1)=1/sqrt(2\*pi)\*exp(-x(1)^2/2);  
8  
9 for i=2:(1001)  
10     x(i)=x(i-1)+inc;  
11     y(i)=1/sqrt(2\*pi)\*exp(-x(i)^2/2);  
12     SUM=SUM+.5\*(y(i)+y(i-1))\*(x(i)-x(i-1));  
13 end  
14  
15  
16

Rectangular Snip

## Command Window

New to MATLAB? See resources for [Getting Started](#).

```
>> normdist(0)

ans =

0.499999999013305

>> normdist(1)

ans =

0.841343757033050
```

MATLAB R2022b - academic use

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```
function SUM=normdist(z)
lower=-6;
upper=z;
inc=(upper-lower)/1000;
SUM=0;
x(1)=lower;
y(1)=1/sqrt(2*pi)*exp(-x(1)^2/2);

for i=2:(1001)
    x(i)=x(i-1)+inc;
    y(i)=1/sqrt(2*pi)*exp(-x(i)^2/2);
    SUM=SUM+0.5*(y(i)+y(i-1))*(x(i)-x(i-1));
end
```

Command Window

```
0.841343757033050
>> format short
>> normdist(-1.33)

ans =
0.0918

>> normdist(2)

ans =
0.9772

>> normdist(2)-normdist(-1.33)

ans =
0.8855
```

Details

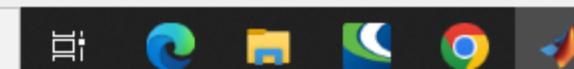
Select a file to view details

Workspace

Name	Value
ans	0.8855



Type here to search



5:00 PM  
11/9/2023

$$x + y + z = 8$$

$$x - y + 2z = 6$$

$$3x + 5y - z = 14$$

$$\det \begin{vmatrix} 1 & 1 & 1 \\ 1 & -1 & 2 \\ 3 & 5 & -1 \end{vmatrix} = 18$$

$$x - 3 + 13 + 8 = 18$$

$$\det_x \begin{vmatrix} 8 & 1 & 1 \\ 6 & -1 & 2 \\ 14 & 5 & -1 \end{vmatrix} = 90 \quad \det_y \begin{vmatrix} 1 & 8 & 1 \\ 1 & 6 & 2 \\ 3 & 14 & -7 \end{vmatrix} = 30$$

$$-(8)3 + 13 + 8$$

$$-24 - 14 + 44$$

$$-24 + 70 + 44$$

$$-70 + 104 - 4$$

$$30$$

$$\det_z \begin{vmatrix} 1 & 1 & 8 \\ 1 & -1 & 6 \\ 3 & 5 & 14 \end{vmatrix} = 24$$

$$-44 + 4 + 64 = 24$$

$$x = \frac{18}{18} = 1 \quad x = \frac{90}{18} = 5 \quad y = \frac{30}{24} = 1.25 \quad z = \frac{24}{18} = 1.3$$

$$x = \frac{90}{18} = 5 \quad y = \frac{30}{18} = 1.6$$

## Week 12 Take Assignment

Problem 2.

$$x - y + z = 4$$

$$2x + y + z = 7$$

$$-x - 2y + 2z = -1$$

$$D = \begin{vmatrix} 1 & -1 & 1 \\ 2 & 1 & 1 \\ -1 & -2 & 2 \end{vmatrix}$$

$$D = [1(2 - (-2))] - [(-1)(4 - (-1))] + [1((4) - (-1))]$$

$$D = 4 + 5 - 3$$

$$D = 6$$

$$D_x = \begin{vmatrix} 4 & -1 & 1 \\ 7 & 1 & 1 \\ -1 & -2 & 2 \end{vmatrix}$$

$$D_y = \begin{vmatrix} 1 & 4 & 1 \\ 2 & 7 & 1 \\ -1 & -1 & 2 \end{vmatrix}$$

$$D_z = \begin{vmatrix} 1 & -1 & 4 \\ 2 & 1 & 7 \\ -1 & -2 & -1 \end{vmatrix}$$

$$D_x = 18$$

$$D_y = 0$$

$$D_z = 6$$

$$x = \frac{D_x}{D} = \frac{18}{6} = 3$$

$$y = \frac{D_y}{D} = \frac{0}{6} = 0$$

$$z = \frac{D_z}{D} = \frac{6}{6} = 1$$

$$x = 3, y = 0, z = 1$$

---

```
p=[1 2 -13 -14 24];
roots(p)

r=[-4 3 -2 1];
p=poly(r)

ans =

-4.000000000000000
2.99999999999998
-1.99999999999999
1.000000000000000

p =
1      2     -13    -14      24
```

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