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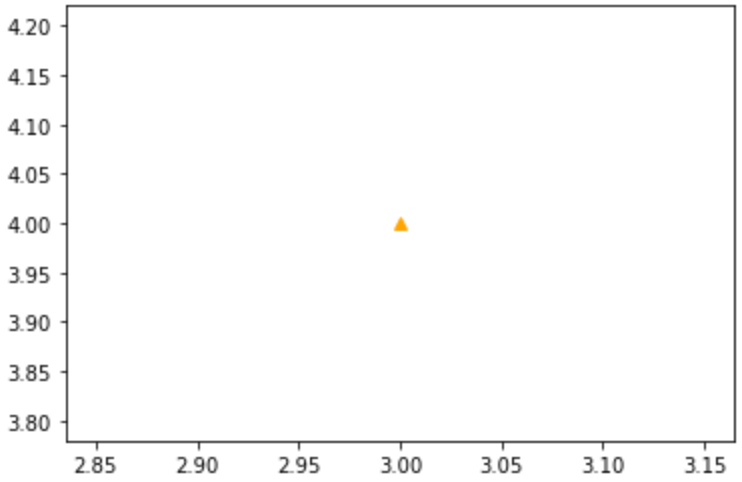
Roll No. - 53

Experiment No. 1

Aim : Graphical Representation Of Data (Univariate/Bivariate Data)

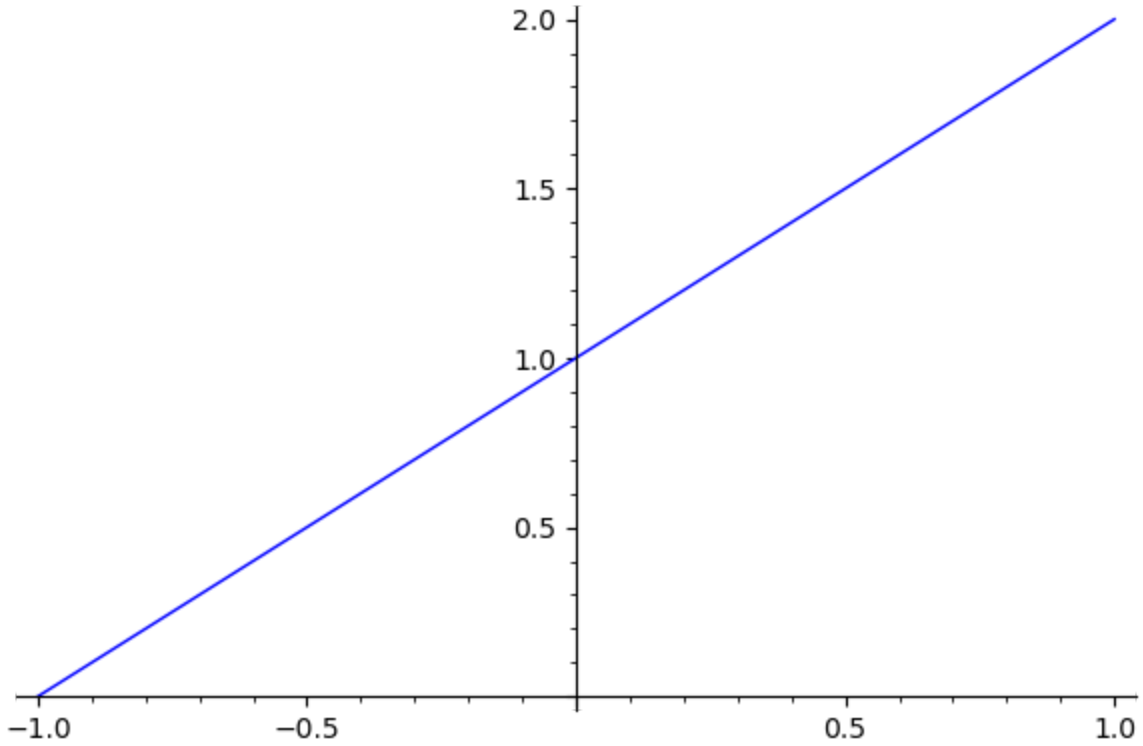
In [2]:
```
# To plot Something
from matplotlib import pyplot as plt
plt.plot(3,4,marker="^",color="orange")
```

Out[2]:
```
[<matplotlib.lines.Line2D object at 0x6fffa5163890>]
```



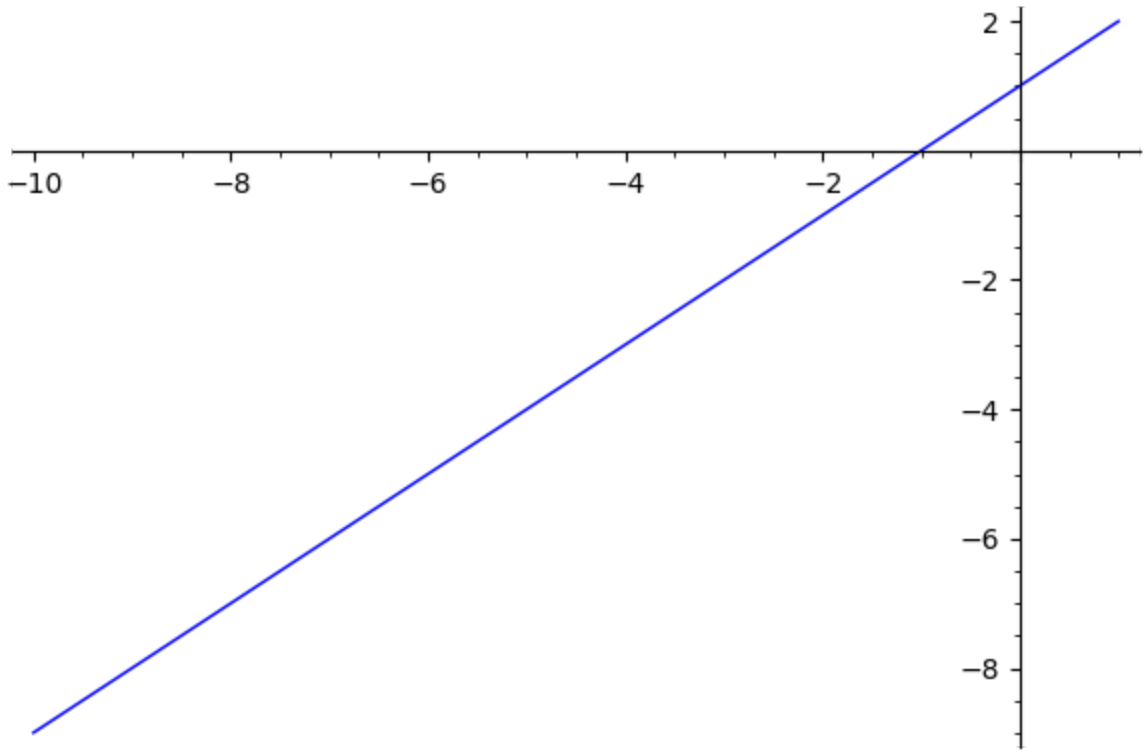
In [4]:
```
#Graphing With Sage Math On X/Y Axis
plot(x+1)
#It Will Plot A Graph
```

Out[4]:



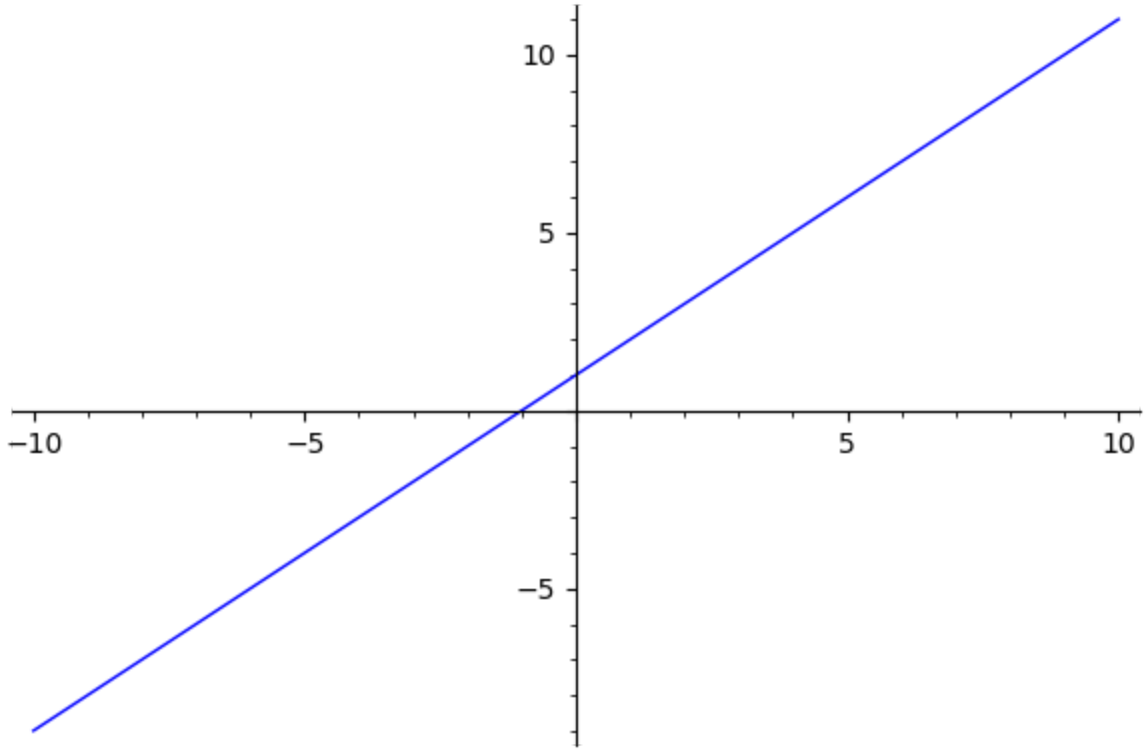
In [7]:
```
#To Set Minimum Value, We Use This
plot(x+1,xmin=-10)
```

Out[7]:



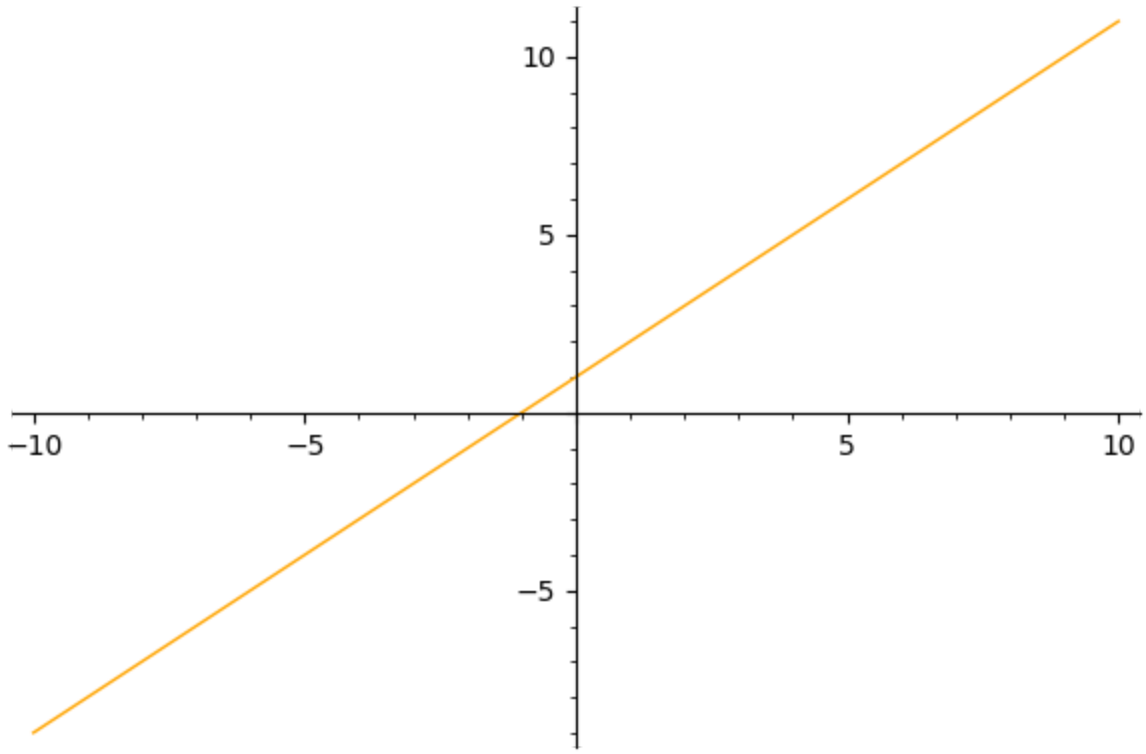
In [8]:
```
#We Can Also Set Maximum Value
plot(x+1,xmin=-10,xmax=10)
```

Out[8]:



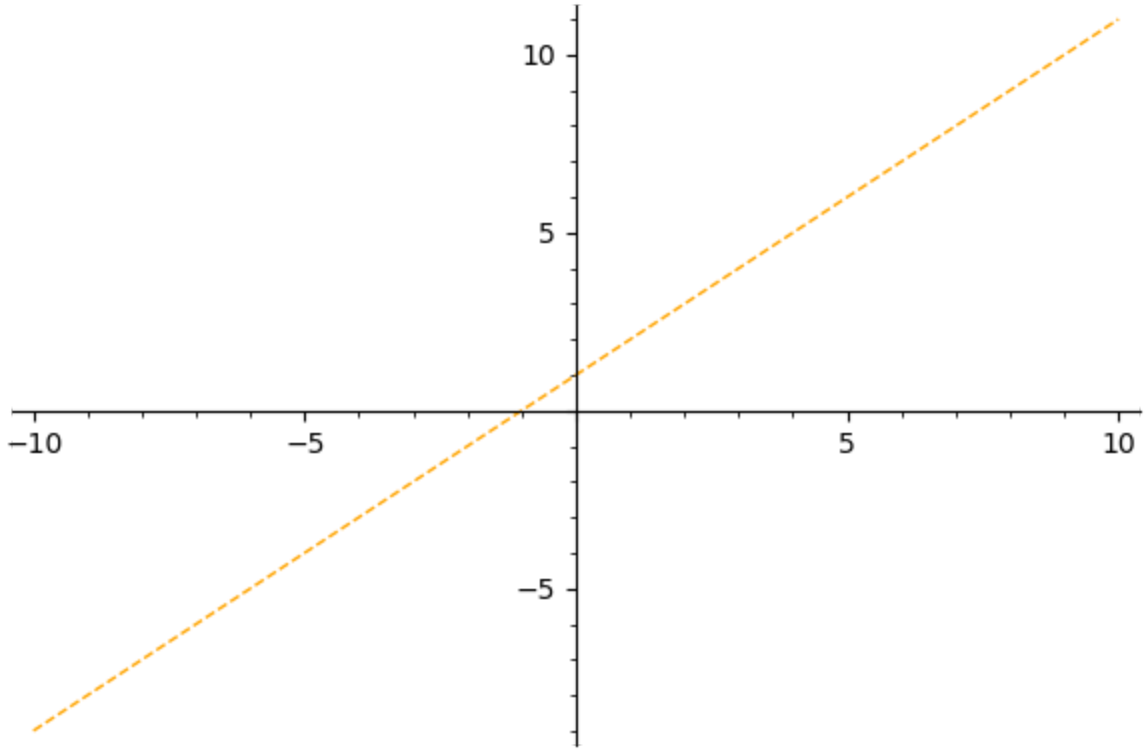
In [11]:
```
#We Can Add Color
plot(x+1,xmin=-10,xmax=10,color="orange")
```

Out[11]:



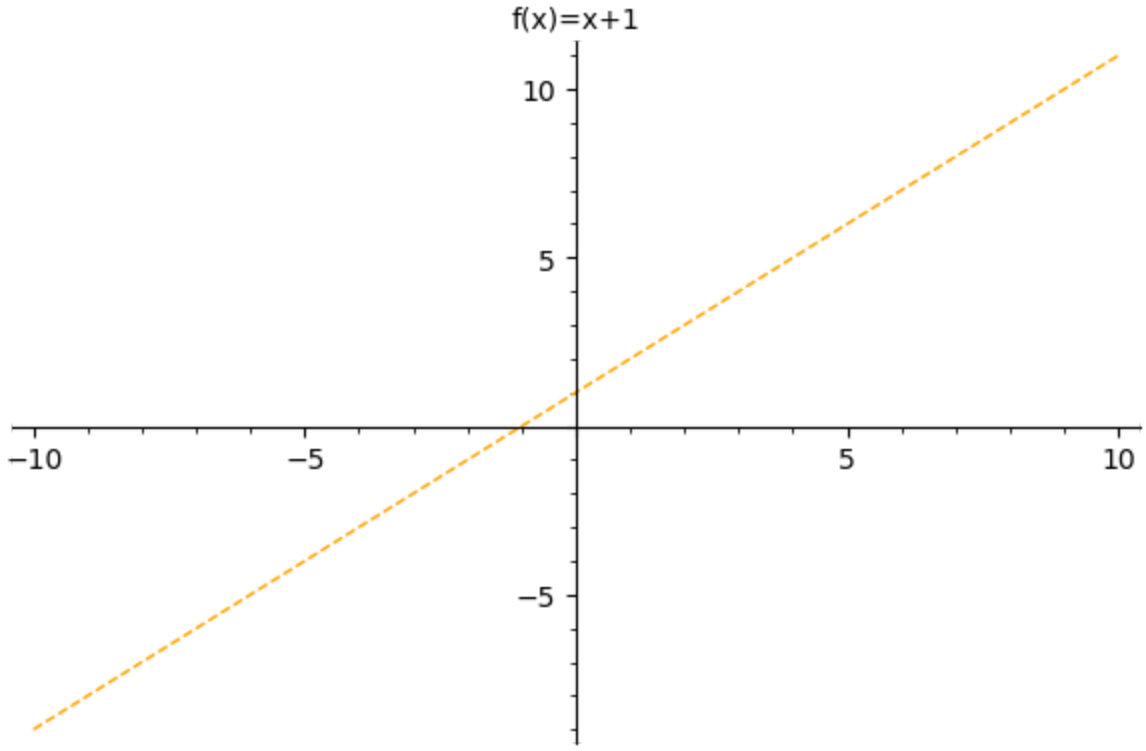
In [12]:
```
#To Add Line Style
plot(x+1,xmin=-10,xmax=10,color="orange",linestyle="dashed")
```

Out[12]:



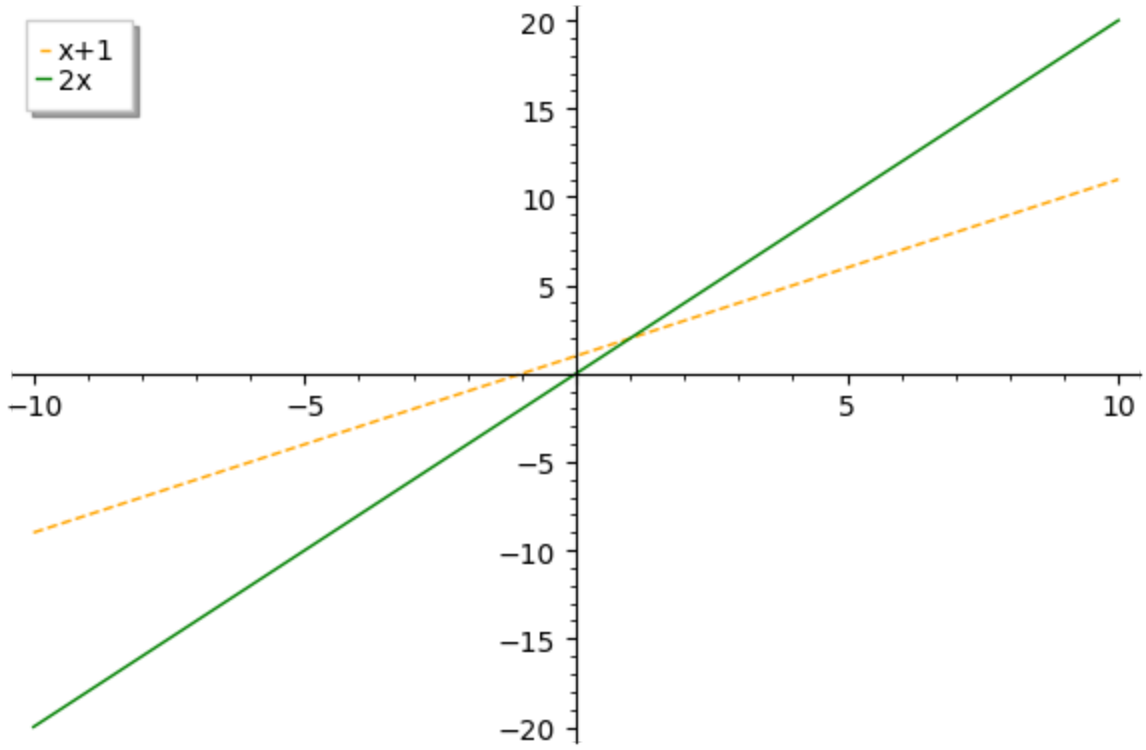
In [13]:
```
#To Add Title Graph
plot(x+1,xmin=-10,xmax=10,color="orange",linestyle="dashed",title="f(x)=x+1")
```

Out[13]:



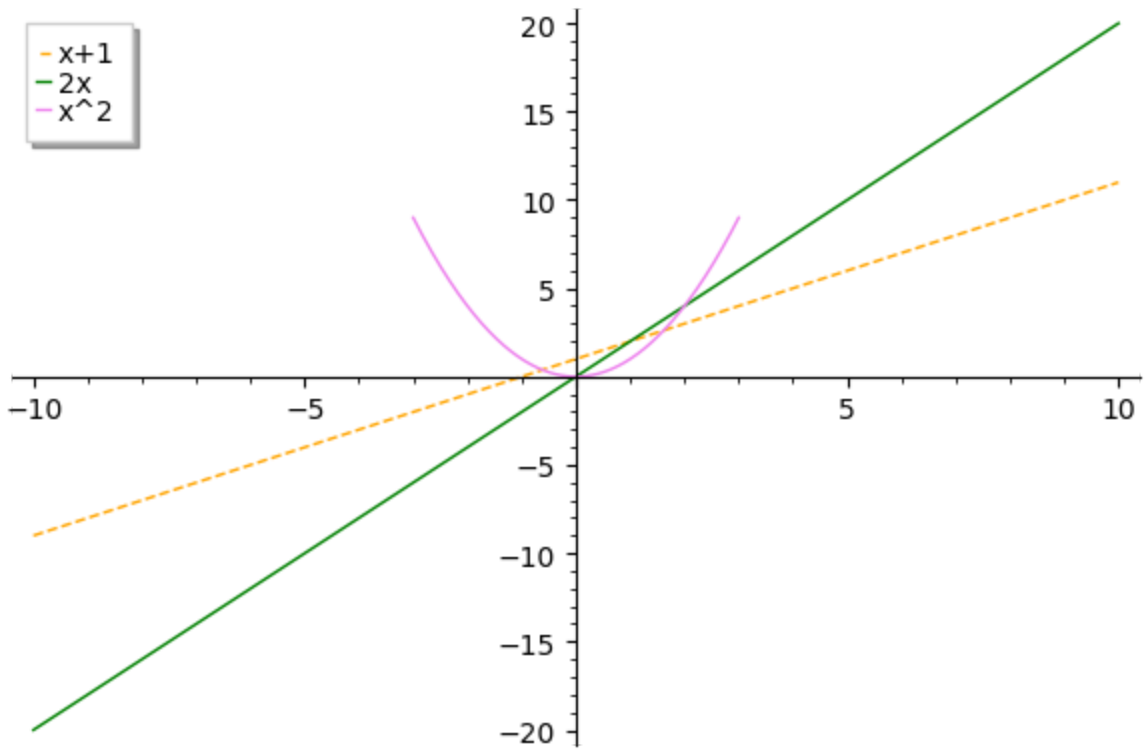
In [24]:
```
#To Plot Multiple Line
Line_1=plot(x+1,xmin=-10,xmax=10,color="orange",linestyle="dashed",legend_label
="x+1")
#To Display Label Top
Line_2=plot(2*x,xmin=-10,xmax=10,color="green",legend_label="2x")
Line_1+Line_2
```

Out[24]:



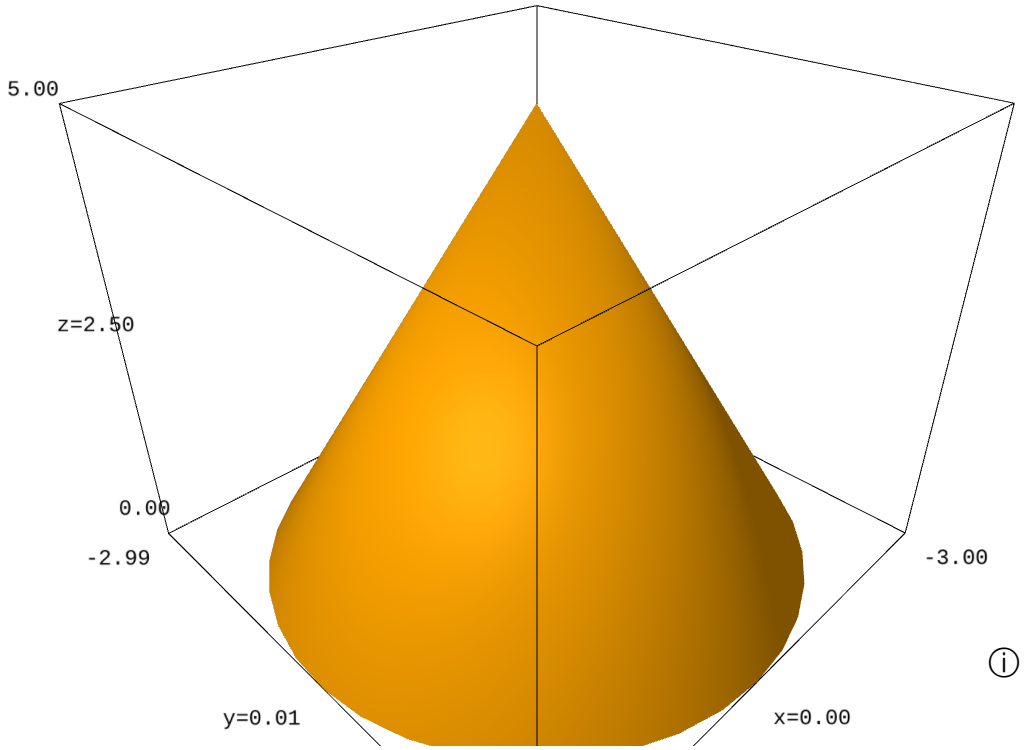
In [7]:
```
#To Plot Any 3 Line
Line_1=plot(x+1,xmin=-10,xmax=10,color="orange",linestyle="dashed",legend_label
="x+1")
Line_2=plot(2*x,xmin=-10,xmax=10,color="green",legend_label="2x")
Line_3=plot(x^2,xmin=-3,xmax=3,color="violet",legend_label="x^2")
Line_1+Line_2+Line_3
```

Out[7]:



In [1]:
```
#To Plot 3-D Shape
from sage.plot.plot3d.shapes import Cone
Cone(3,5,color="orange")
```

Out[1]:



Conclusion : We Have Successfully Implemented The Graphical Representation Of Data