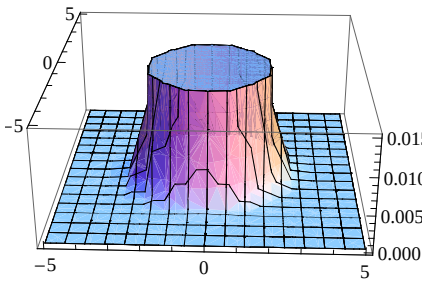
In[4]:= `NIntegrate[e^-(x^2+y^2), {x, 0, ∞}, {y, 0, ∞}]`

Out[4]= `0.785398`

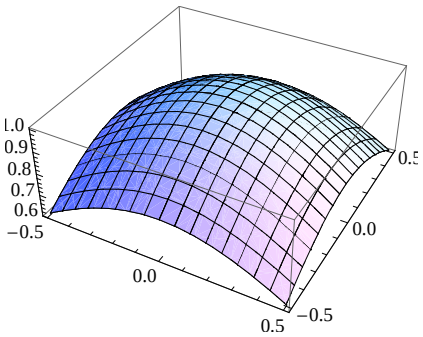
In[5]:= `Plot3D[e^-(x^2+y^2), {x, -5, 5}, {y, 5, -5}]`

Out[5]=



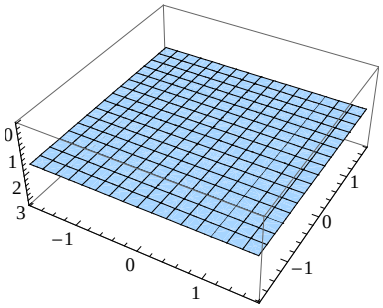
In[6]:= `Plot3D[e^-(x^2+y^2), {x, -0.5, 0.5}, {y, -0.5, 0.5}]`

Out[6]=



In[8]:= `Plot3D[π / 2, {x, -1.75, 1.75}, {y, -1.75, 1.75}]`

Out[8]=



In[19]:= `NIntegrate[e^-(x^2+y^2), {x, 0, ∞}, {y, 0, ∞}]`

Out[19]= `0.785398`

In[21]:= `NIntegrate[e^-(x^2+y^2), {x, 0.5, ∞}, {y, 0.5, ∞}]`

Out[21]= `0.180579`

In[22]:= `Integrate[Sin[y] / y, {x, 0, π}, {y, x, π}]`

Out[22]= `2`

In[23]:= `Integrate[x^2 + y^2, x, y]`

Out[23]= $\frac{1}{3} x y \left(x^2 + y^2\right)$

In[25]:=
$$\int\int \left(x^2 + y^2\right) \, dx \, dy$$

Out[25]=
$$\frac{1}{3} x y \left(x^2 + y^2\right)$$

In[26]:=
```
Integrate[Sin[x^2 + y^2], x, y]
```

Out[26]=
$$\frac{1}{2} \pi \left(\text{FresnelC}\left[\sqrt{\frac{2}{\pi}}\, y\right] \text{FresnelS}\left[\sqrt{\frac{2}{\pi}}\, x\right] + \text{FresnelC}\left[\sqrt{\frac{2}{\pi}}\, x\right] \text{FresnelS}\left[\sqrt{\frac{2}{\pi}}\, y\right]\right)$$

In[28]:=
```
∫∫Cos[x]^3/x dx dy
```

Out[28]=
$$\frac{1}{4} y \left(3\, \text{CosIntegral}[x] + \text{CosIntegral}[3\, x]\right)$$

In[29]:=
```
Integrate[f[x, y], {x, -2, 2}, {y, Sqrt[4 - x^2]/Sqrt[2], Sqrt[4 - x^2]/Sqrt[2]}]
```

Out[29]=
$$0$$

In[30]:=
```
Integrate[f[x, y], {x, -5, 5}, {y, Sin[x^3], Cos[y]}]
```

Out[30]=
$$\int_{-5}^{5} \int_{\text{Sin}[x^3]}^{\text{Cos}[y]} f[x, y] \, dy \, dx$$

In[32]:=
```
Integrate[f[x, y] - g[x, y], {x, -2, 2}, {y, Sqrt[4 - x^2]/Sqrt[2], Sqrt[4 - x^2]/Sqrt[2]}]
```

Out[32]=
$$0$$

In[33]:=
```
Integrate[f[x, y] - g[x, y], {x, -.5, .5}, {y, Sin[x^3], Cos[y]}]
```

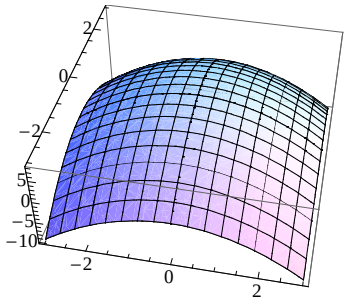
Out[33]=
$$\int_{-0.5}^{0.5} \int_{\text{Sin}[x^3]}^{\text{Cos}[y]} (f[x, y] - g[x, y]) \, dy \, dx$$

In[44]:=

```
f[x_, y_] = 8 - x^2 - y^2;
g[x_, y_] = x^2 + 3 × y^2;
Plot f = Plot3D[f[x, y], {x, -3, 3}, {y, -3, 3}]
Plot g = Plot3D[g[x, y], {x, -3, 3}, {y, -3, 3}]
Show[Plot f, Plot g]
```

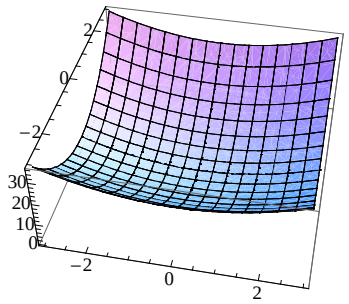
Set::write : Tag Times in f Plot is Protected. ≫

Out[46]=



Set::write : Tag Times in g Plot is Protected. ≫

Out[47]=

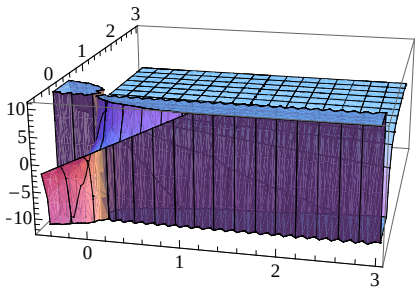


Show::gcomb : Could not combine the graphics objects in Show[f Plot, g Plot]. ≫

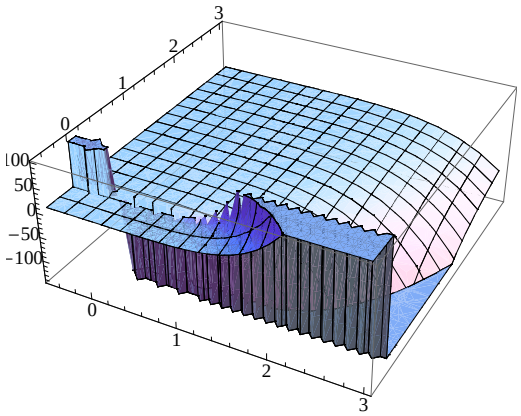
Out[48]= `Show[f Plot, g Plot]`

In[54]:=
```
f[x_, y_] = 2 - x / y^3;
g[x_, y_] = 8 - x^5 / y;
Plot3D[f[x, y], {x, -0.5, 3}, {y, -0.5, 3}]
Plot3D[g[x, y], {x, -0.5, 3}, {y, -0.5, 3}]
Show[Plot f, Plot g]
```

Out[56]=



Out[57]=



Show::gcomb : Could not combine the graphics objects in Show[f Plot, g Plot]. ≫

Out[58]= Show[f Plot, g Plot]