

In[1]:= 1 / 2 + 1 / 3

Out[1]=  $\frac{5}{6}$

In[2]:= a = {{0, 1}, {6, 1}}

Out[2]= {{0, 1}, {6, 1}}

In[3]:= Eigenvalues[a]

Out[3]= {3, -2}

In[4]:= Eigenvectors[a]

Out[4]= {{1, 3}, {-1, 2}}

In[5]:= Expand[(x + y)^6]

Out[5]=  $x^6 + 6x^5y + 15x^4y^2 + 20x^3y^3 + 15x^2y^4 + 6xy^5 + y^6$

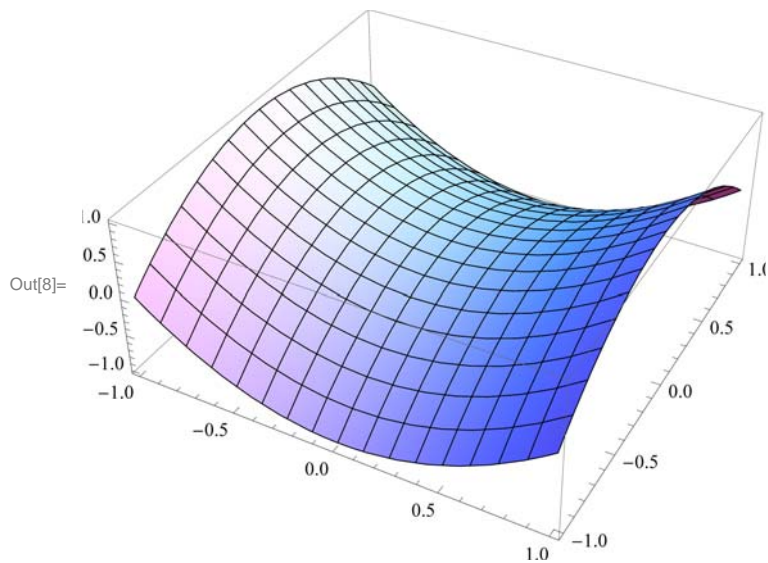
In[6]:= N[Pi, 50]

Out[6]= 3.1415926535897932384626433832795028841971693993751

In[7]:= Integrate[Log[x], x]

Out[7]=  $-x + x \text{Log}[x]$

In[8]:= Plot3D[x^2 - y^2, {x, -1, 1}, {y, -1, 1}]



In[9]:= Solve[x^3 + 2x == 1, x]

Out[9]=  $\left\{ \left\{ x \rightarrow -2 \left( \frac{2}{3(9 + \sqrt{177})} \right)^{1/3} + \frac{\left( \frac{1}{2}(9 + \sqrt{177}) \right)^{1/3}}{3^{2/3}} \right\}, \right.$   
 $\left. \left\{ x \rightarrow (1 + i\sqrt{3}) \left( \frac{2}{3(9 + \sqrt{177})} \right)^{1/3} - \frac{(1 - i\sqrt{3}) \left( \frac{1}{2}(9 + \sqrt{177}) \right)^{1/3}}{2 \cdot 3^{2/3}} \right\}, \right.$   
 $\left. \left\{ x \rightarrow (1 - i\sqrt{3}) \left( \frac{2}{3(9 + \sqrt{177})} \right)^{1/3} - \frac{(1 + i\sqrt{3}) \left( \frac{1}{2}(9 + \sqrt{177}) \right)^{1/3}}{2 \cdot 3^{2/3}} \right\} \right\}$

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In[10]:= ParametricPlot3D[{Cos[t] (3 + Cos[u]), Sin[t] (3 + Cos[u]), Sin[u]}, {t, 0, 2 Pi}, {u, 0, 2 Pi}]
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