

In[11]:= **Reduce** [1 / (x - 1) > 2]

$$\text{Out[11]} = 1 < x < \frac{3}{2}$$

In[12]:= **Reduce** [1 / x - 3 / (2 * (x + 1)) > 1]

$$\text{Out[12]} = -2 < x < -1 \parallel 0 < x < \frac{1}{2}$$

In[17]:= **Solve** [Abs[2 * x - 1] + Abs[x - 2] == 6]

$$\text{Out[17]} = \{\{x \rightarrow -1\}, \{x \rightarrow 3\}\}$$

In[22]:= **Integrate** [(x (x^(1/2) - x^2 * x^(1/3))) / (x^(1/4)), x]

$$\text{Out[22]} = 4 \left(\frac{2 x^{3/2}}{3} - \frac{x^4}{12} \right)$$

In[28]:= **Solve** [Sin[x] == Cos[x]]

$$\text{Out[28]} = \left\{ \left\{ x \rightarrow -\frac{3\pi}{4} + 2\pi c_1 \text{ if } c_1 \in \mathbb{Z} \right\}, \left\{ x \rightarrow \frac{\pi}{4} + 2\pi c_1 \text{ if } c_1 \in \mathbb{Z} \right\} \right\}$$

In[30]:= **Integrate** [x * e^(x^2), x]

$$\text{Out[30]} = \frac{e^{x^2}}{2 \text{Log}[e]}$$

In[32]:= **Integrate** [Log[x] / x, x]

$$\text{Out[32]} = \frac{\text{Log}[x]^2}{2}$$

In[33]:= **Integrate** [Sin[x] / x, {x, 0, 0.8}]

$$\text{Out[33]} = 0.772096$$

In[36]:= **D**[(x + 1) / (1 - x)^(1/2), x]

$$\text{Out[36]} = \frac{1}{\sqrt{1-x}} + \frac{1+x}{2(1-x)^{3/2}}$$

In[37]:= **D**[(x^2 * (x * (x^3)^(1/4)^(1/2)^(1/3)), x]

$$\text{Out[37]} = \frac{x^5}{(x^6)^{2/3}}$$

In[39]:= **Limit** [(x - 3) * (-1)^x / (x^2 - 9), x -> 3]

$$\text{Out[39]} = -\frac{1}{6}$$

In[41]:= **Limit** [((1 + m * x)^(1 / 3) - 1) / x, x → 0]

Out[41]=
$$\frac{m}{3}$$