In[1]:=
```
Integrate[3 x^2 Cos[x^3], x]
```
Out[1]= $\sin[x^3]$

In[2]:=
```
Integrate[x^3 Sqrt[x^4 + 5], x]
```
Out[2]= $\frac{1}{6}(5 + x^4)^{3/2}$

In[3]:=
```
Integrate[Sqrt[1 + Sqrt[x]], x]
```
Out[3]= $\frac{4}{15}\left(1 + \sqrt{x}\right)^{3/2}\left(-2 + 3\sqrt{x}\right)$

In[4]:=
```
Integrate[Sqrt[x + 2], {x, -1, 2}]
```
Out[4]= $\frac{14}{3}$

In[5]:=
```
Integrate[Cos[x + π], {x, 0, π}]
```
Out[5]= 0

In[6]:=
```
Integrate[x / (1 + x^2)^2, {x, 0, 2}]
```
Out[6]= $\frac{2}{5}$

In[7]:=
```
Integrate[x / Sqrt[x + 1], {x, 3, 7}]
```
Out[7]= $\frac{4}{3}\left(-1 + 5\sqrt{2}\right)$

In[8]:=
```
Integrate[(Tan[x])^3 / (Cos[x])^2, {x, 0, π / 4}]
```
Out[8]= $\frac{1}{4}$