Map与MapThread

先来忍受一下Thread

In[ ]:=
```
Thread[Log[x == y], Equal]
```
逐项作用 对数 恒等

Out[ ]=
```
Log[x] == Log[y]
```

In[ ]:=
```
Thread[Log[x == y]]
```
逐项作用 对数

Out[ ]=
```
Log[x == y]
```

In[ ]:=
```
Thread[f[{a, b, c}, {x, y, z}]]
```
逐项作用

Out[ ]=
```
{f[a, x], f[b, y], f[c, z]}
```

In[ ]:=
```
MapThread[f, {{a, b, c}, {x, y, z}}]
```
映射线程

Out[ ]=
```
{f[a, x], f[b, y], f[c, z]}
```

Map的作用

In[ ]:=
```
Map[f, {{1, 2, 3}, {4, 5, 6}, {7, 8, 9}}]
```
映射

Out[ ]=
```
{f[{1, 2, 3}], f[{4, 5, 6}], f[{7, 8, 9}]}
```

In[ ]:=
```
Map[f @@ # &, {{1, 2, 3}, {4, 5, 6}, {7, 8, 9}}]
```
映射

Out[ ]=
```
{f[1, 2, 3], f[4, 5, 6], f[7, 8, 9]}
```

MapThread的作用

In[ ]:=
```
MapThread[f, {{1, 2, 3}, {4, 5, 6}, {7, 8, 9}}]
```
映射线程

Out[ ]=
```
{f[1, 4, 7], f[2, 5, 8], f[3, 6, 9]}
```

In[ ]:=
```
MapThread[f[{##}] &, {{1, 2, 3}, {4, 5, 6}, {7, 8, 9}}]
```
映射线程

Out[ ]=
```
{f[{1, 4, 7}], f[{2, 5, 8}], f[{3, 6, 9}]}
```

Apply的作用

In[ ]:=
```
f @@ {1, 2, 3}
```
Out[ ]=
```
f[1, 2, 3]
```

In[ ]:=
```
f @@ {{1, 1}, {2, 2}, {3, 3}}
```
Out[ ]=
```
f[{1, 1}, {2, 2}, {3, 3}]
```

In[ ]:=
```
f /@ {{1, 1}, {2, 2}, {3, 3}}
```
Out[ ]=
```
{f[{1, 1}], f[{2, 2}], f[{3, 3}]}
```

In[ ]:=
```
f @@@ {{1, 1}, {2, 2}, {3, 3}}
```
Out[ ]=
```
{f[1, 1], f[2, 2], f[3, 3]}
```

In[ ]:=
```
f @@@ {1, 2, 3}
```
Out[ ]=
```
{1, 2, 3}
```

In[ ]:=
```
f @@ 1
```
Out[ ]=
```
1
```