



```
in[73]:= f[x_, y_] :=  $\frac{1+2y}{x}$ ;
```

```
y[0] = 0;
```

```
h = .2;
```

```
xstop = 1.4;
```

```
x[0] = 1;
```

```
i = 0;
```

```
While[x[i] < xstop,
```

```
  k1[i] = h*f[x[i], y[i]];]
```

```
  k2[i] = h*f[x[i] + .5h, y[i] + .5k1[i]];
```

```
  k3[i] = h*f[x[i] + .5h, y[i] + .5k2[i]];
```

```
  k4[i] = h*f[x[i] + h, y[i] + k3[i]];
```

```
  i = i + 1;
```

```
  y[i] = y[i - 1] +  $\frac{k1[i - 1] + 2k2[i - 1] + 2k3[i - 1] + k4[i - 1]}{6}$ ;
```

```
  x[i] = x[i - 1] + h;
```

```
]
```

```
Table[x[i], {i, 0, i}]
```

```
Table[y[i], {i, 0, i}]
```

```
Table[k1[i], {i, 0, i - 1}]
```

```
Table[k2[i], {i, 0, i - 1}]
```

```
Table[k3[i], {i, 0, i - 1}]
```

```
Table[k4[i], {i, 0, i - 1}]
```

```
Out[80]= {1, 1.2, 1.4}
```

```
Out[81]= {0, 0.219972, 0.479946}
```

```
Out[82]= {0.2, 0.239991}
```

```
Out[83]= {0.218182, 0.258452}
```

```
Out[84]= {0.221488, 0.261292}
```