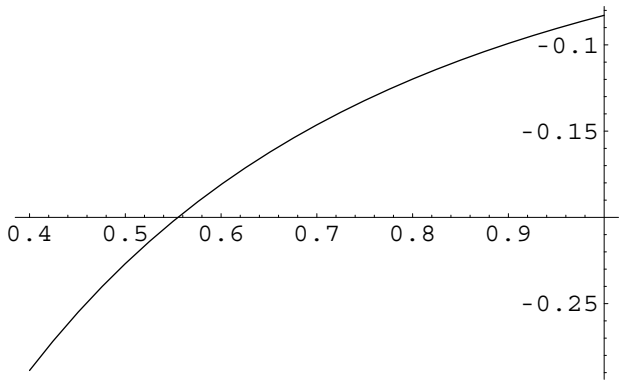
```
In[1]:= S[y0_, y1_, y2_, h_] := (h / 3) (y0 + 4 y1 + y2)

In[2]:= f[x_] := Sqrt[1 + x]

In[3]:= N[S[f[0.4], f[0.7], f[1], 0.3], 10]

Out[3]= 0.7812791443

In[4]:= N[Integrate[f[x], {x, 0.4, 1}], 10]

Out[4]= 0.7812831903

In[5]:= Errorex = Abs[0.7812791443 - 0.7812831903]
```

Out[5]= 4.046×10^{-6}

In[6]:= `g[x_] = D[f[x], {x, 4}]`

Out[6]= $-\frac{15}{16\,(1+x)^{7/2}}$

```
In[7]:= Plot[g[x], {x, 0.4, 1}]
```



Out[7]= - Graphics -

```
In[8]:= Cotaerror = Abs[((0.3^5) / 90) g[0.4]]
```

Out[8]= 7.79627×10^{-6}