

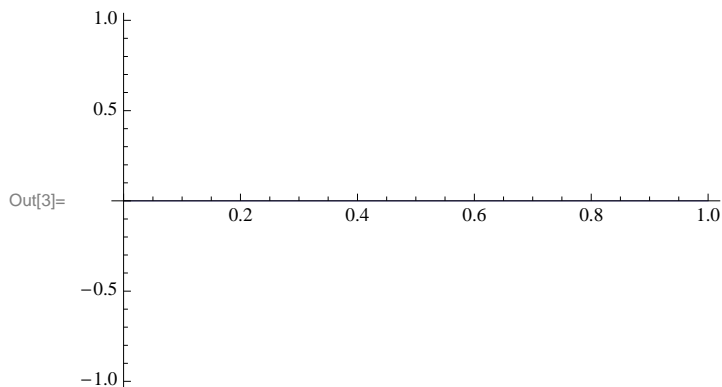
```

In[1]:= ode = y''[x] + y[x] * ((1 + y'[x]^2))^(3/2)
nsol = NDSolve[{ode == 0, y[0] == 0, y[1] == 0}, y, {x, 0, 1}]
Plot[y[x] /. nsol[[1]], {x, 0, 1}]
Table[y[x] /. nsol[[1]], {x, 0, 1, 0.1}]

```

Out[1]= $y[x] (1 + y'[x]^2)^{3/2} + y''[x]$

Out[2]= $\{y \rightarrow \text{InterpolatingFunction}[\{\{0., 1.\}\}, \langle \rangle]\}$



Out[4]= {0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0.}

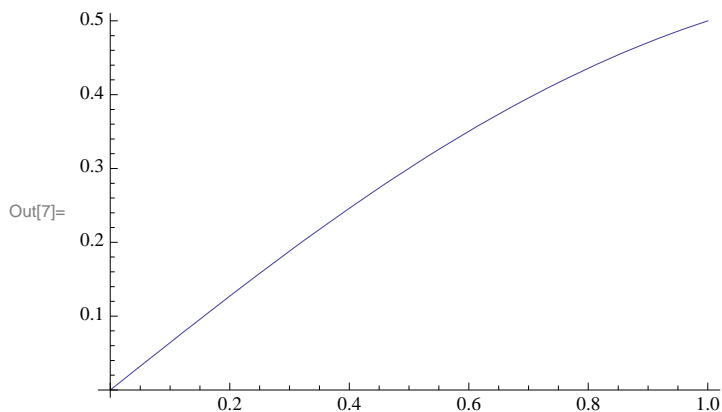
```

In[5]:= ode = y''[x] + y[x] * ((1 + y'[x]^2))^(3/2)
nsol = NDSolve[{ode == 0, y[0] == 0, y[1] == 1/2}, y, {x, 0, 1}]
Plot[y[x] /. nsol[[1]], {x, 0, 1}]
Table[y[x] /. nsol[[1]], {x, 0, 1, 0.1}]

```

Out[5]= $y[x] (1 + y'[x]^2)^{3/2} + y''[x]$

Out[6]= $\{y \rightarrow \text{InterpolatingFunction}[\{\{0., 1.\}\}, \langle \rangle]\}$

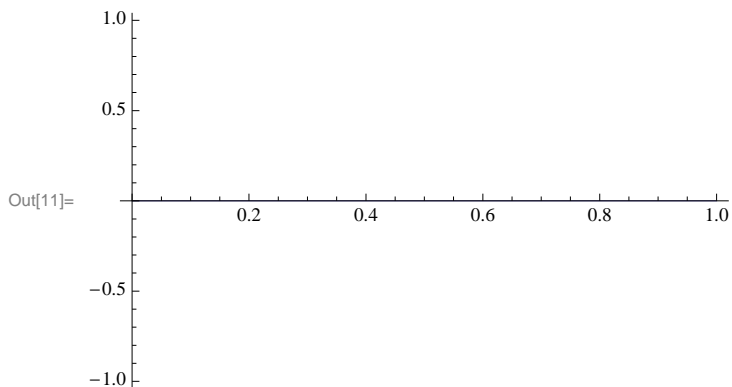


Out[8]= {0., 0.0640806, 0.127098, 0.188051, 0.246048, 0.300342, 0.350335, 0.395575, 0.435736, 0.470593, 0.5}

```
In[9]:= ode = y''[x] + y[x] * (1 + y'[x]) ^ (3 / 2)
nsol = NDSolve[{ode == 0, y[0] == 0, y[1] == 0}, y, {x, 0, 1}]
Plot[y[x] /. nsol[[1]], {x, 0, 1}]
Table[y[x] /. nsol[[1]], {x, 0, 1, 0.1}]
```

```
Out[9]= Y[x] (1 + Y'[x])3/2 + Y''[x]
```

```
Out[10]= {{Y -> InterpolatingFunction[{{0., 1.}}, <>]}}
```

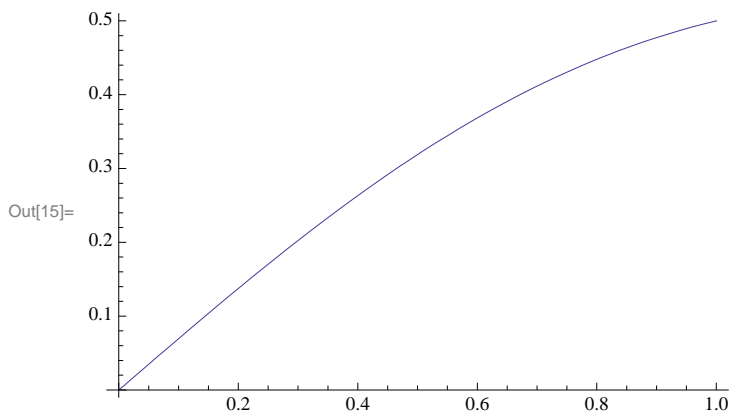


```
Out[12]= {0., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0.}
```

```
In[13]:= ode = y''[x] + y[x] * (1 + y'[x]) ^ (3 / 2)
nsol = NDSolve[{ode == 0, y[0] == 0, y[1] == 1 / 2}, y, {x, 0, 1}]
Plot[y[x] /. nsol[[1]], {x, 0, 1}]
Table[y[x] /. nsol[[1]], {x, 0, 1, 0.1}]
```

```
Out[13]= Y[x] (1 + Y'[x])3/2 + Y''[x]
```

```
Out[14]= {{Y -> InterpolatingFunction[{{0., 1.}}, <>]}}
```



```
Out[16]= {0., 0.0694704, 0.137423, 0.202432, 0.263244,
0.318832, 0.368425, 0.411512, 0.44782, 0.477283, 0.5}
```

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In[17]:= $Version
```

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Out[17]= 6.0 for Mac OS X x86 (64-bit) (February 7, 2008)
```