

```
In[ ]:= ClearAll[Evaluate[Context[] <> "*"]]
```

```
In[ ]:= (*****)
```

```
In[ ]:= p = 1
```

```
Out[ ]:= 1
```

```
In[ ]:= amax = 8
```


```
Out[ ]:= 8
```

```
In[ ]:= solution = NDSolve[
```

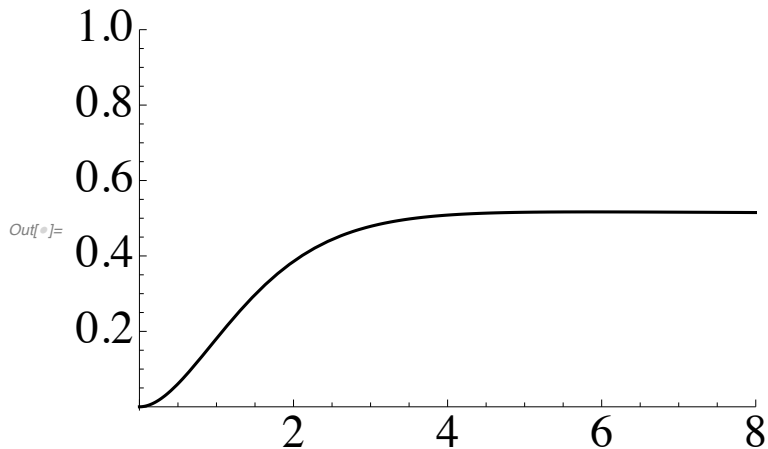
```
  {f'''[a] + 3 * f[a] * f''[a] - 2 * f'[a]^2 + t[a] == 0, t''[a] + 3 * p * f[a] * t'[a] == 0,
```

```
  f[0] == 0, f'[0] == 0, f''[0] == 0.642, t[0] == 1, t'[0] == -0.567}, {f, t}, {a, 0, amax}]
```

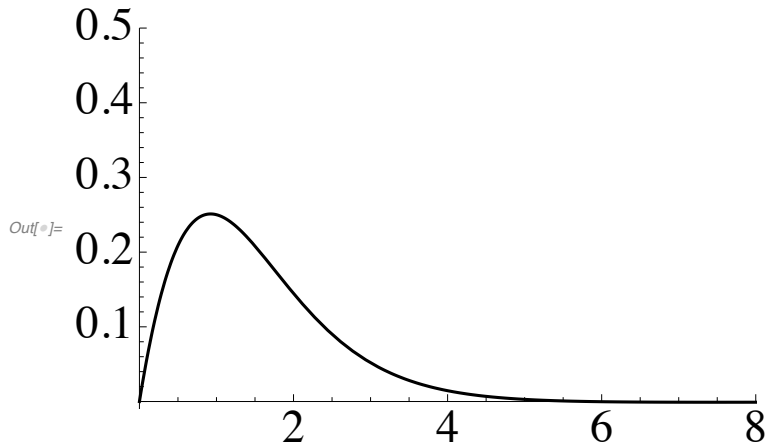
```
Out[ ]:= {{f -> InterpolatingFunction[ Domain: {{0., 8.}} Output: scalar ]},
```

```
  t -> InterpolatingFunction[ Domain: {{0., 8.}} Output: scalar ] ]}}
```

```
In[ ]:= Plot[Evaluate[ f[a] /. solution ], {a, 0, amax}, PlotRange->{{0, amax}, {-0.01, 1.0}}, AxesOrigin->{0, 0}, PlotStyle->{Black}, BaseStyle->{FontSize->24}, AxesStyle->{Thickness[0.001], Thickness[0.001]}, AspectRatio->1/GoldenRatio, LabelStyle->{Black, FontFamily->"Times"}]
```



```
In[ ]:= Plot[Evaluate[ f'[a] /. solution ], {a, 0, amax},PlotRange->{{0,amax},{-0.01,0.5}},AxesOrigin->{0,0},PlotStyle->{Black},BaseStyle->{FontSize->24},AxesStyle->{Thickness[0.001],Thickness[0.001]},AspectRatio->1/GoldenRatio,LabelStyle->{Black,FontFamily->"Times"}]
```



```
In[ ]:= Plot[Evaluate[ t[a] /. solution ], {a, 0, amax},PlotRange->{{0,amax},{-0.1,1}},AxesOrigin->{0,0},PlotStyle->{Black},BaseStyle->{FontSize->24},AxesStyle->{Thickness[0.001],Thickness[0.001]},AspectRatio->1/GoldenRatio,LabelStyle->{Black,FontFamily->"Times"}]
```

