

Estas constantes son un tanto arbitrarias:

```
In[1]:=  $\mu = 0.1;$   
 $h = 1;$ 
```

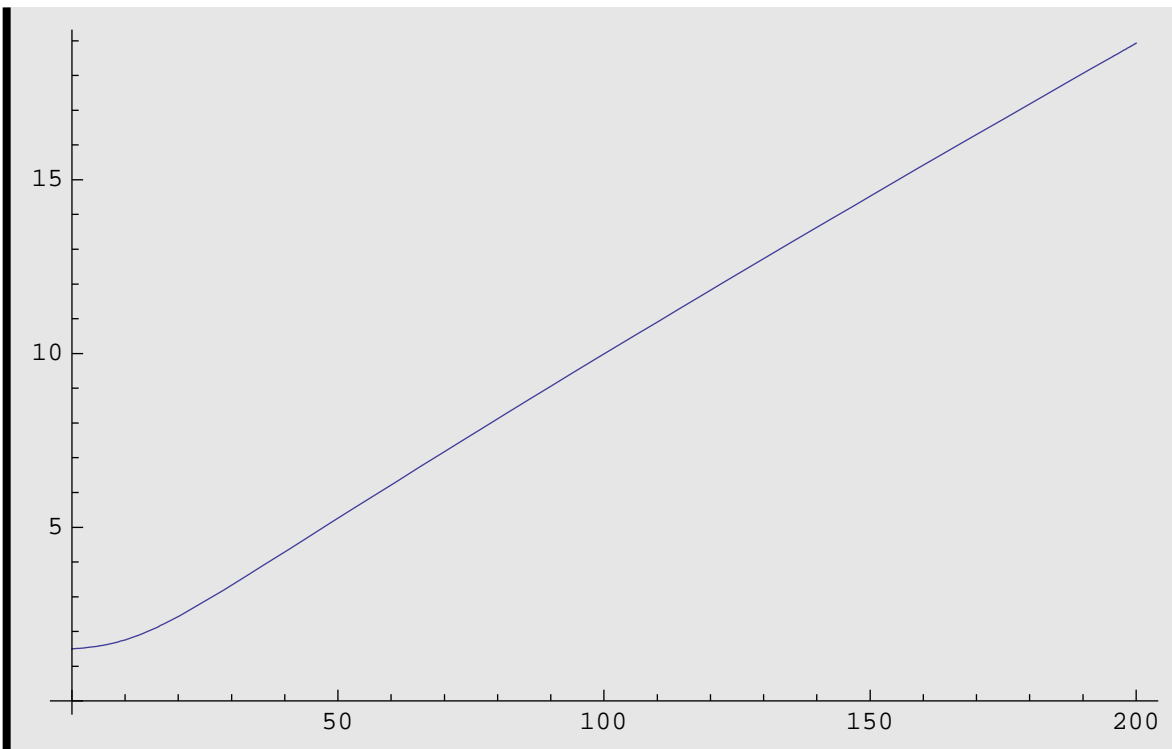
```
In[3]:=  $t_{\text{final}} := 200$ 
```

```
In[4]:= solution =  
NDSolve[ $\left\{r''[t] - r'[t] (\theta'[t])^2 == -\mu \frac{r'[t]^2}{r[t]}, r[t]^2 \theta'[t] == h, \right.$   
 $\left. r[0] == 1.5, r'[0] == 0.01, \theta[0] == 0\right\}, \{r, \theta\}, \{t, 0, t_{\text{final}}\}]$ 
```

```
Out[4]= {{r -> InterpolatingFunction[{{0., 200.}}, <>],  
          $\theta \rightarrow$  InterpolatingFunction[{{0., 200.}}, <>]}}
```

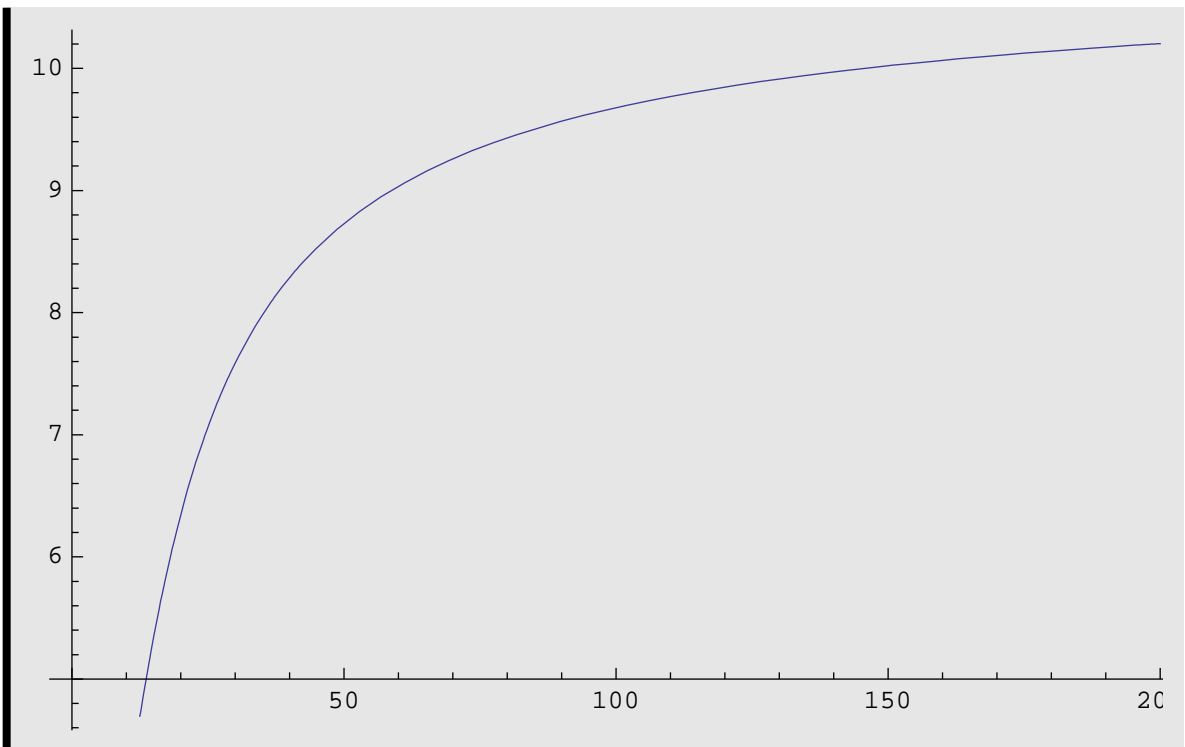
```
In[5]:= Plot[Evaluate[r[t] /. solution], {t, 0, tfinal}]
```

Out[5]=



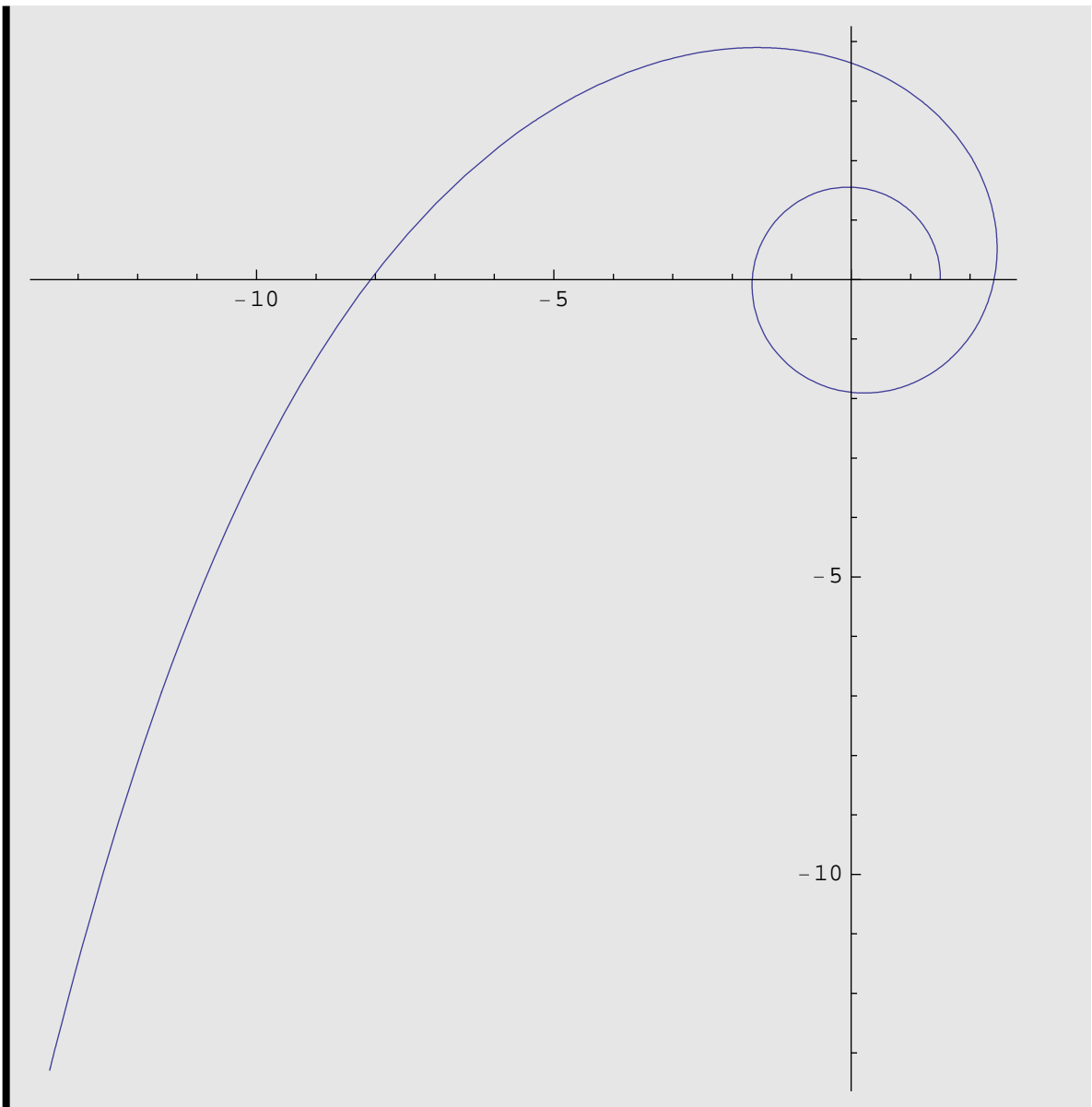
In[6]:= `Plot[Evaluate[$\theta[t]$ /. solution], {t, 0, tfinal}]`

Out[6]=



```
In[7]:= ParametricPlot[Evaluate[{r[t] Cos[θ[t]], r[t] Sin[θ[t]]} /. solution],  
  {t, 0, tfinal}, AspectRatio → Automatic]
```

Out[7]=



Véase el escape asintótico luego de algunos giros en espiral.