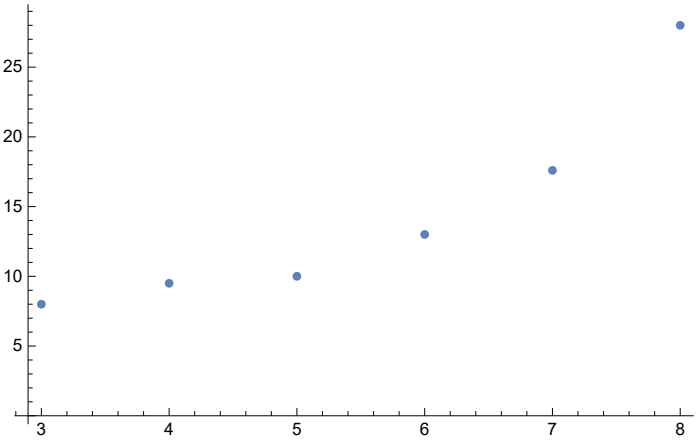
In[10]:=
```
data = {{3, 8}, {4, 9.5}, {5, 10}, {6, 13}, {7, 17.6}, {8, 28}}
varListPlot = ListPlot[data]

function := a * 2^ (b * x)
foundVars = FindFit[data, function, {a, b}, {x}]

foundFunction := function /. foundVars
foundFunction

plotFunction = Plot[foundFunction, {x, 0, 8}]

Show[varListPlot, plotFunction]

foundFunction /. x → 512
```

Out[10]= {{3, 8}, {4, 9.5}, {5, 10}, {6, 13}, {7, 17.6}, {8, 28}}

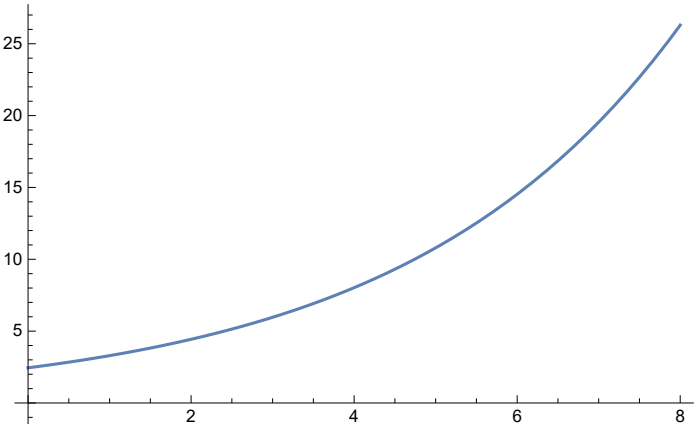
Out[11]=



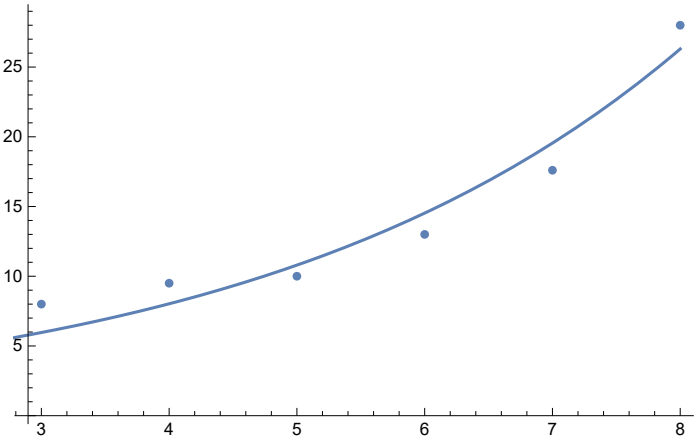
Out[13]= {a → 2.44808, b → 0.42815}

Out[15]= $2.44808 \times 2^{0.42815\, x}$

Out[16]=



Out[17]=



Out[18]= 2.39017×10^{66}