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(*Example HOMEWORK for PHY 711
8/22/2022 Natalie Holzwarth
Problem Set 0
The purpose of this problem set is to become familiar with the use of Maple,
Mathematica, or Wolfram Alpha as a tool for analyzing
    mathematically complex problems. Choose one of the tools to
visualize and solve the following problems.
1. Numerically find the values of x which satisfy the following equation.      x^3-
   x^2=7.  Use graphics to help visualize the
     problem.                                    2. g(x)=int_0^x
     (exp(-s^2).    Use graphics to help you vistualize the integrand and the integral.*)
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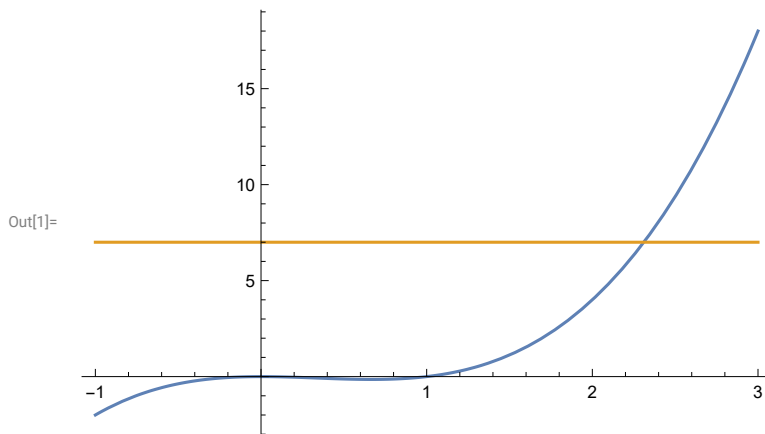
In[1]:=  `Plot[{x^3 - x^2, 7}, {x, -1, 3}]`

Out[1]=



In[2]:=  `NSolve[x^3 - x^2 == 7, x]`

Out[2]=  $\{\{x \to -0.655426 - 1.61233\,\mathbb{i}\}, \{x \to -0.655426 + 1.61233\,\mathbb{i}\}, \{x \to 2.31085\}\}$

`Integrate[Exp[-s^2], {s, 0, x}]`

Out[•]=

$$\left\{\left\{\frac{1}{2}\sqrt{\pi}\,\text{Erf}[x]\right\}, \{\Box\}\right\}$$

*In[ ]:=*

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Plot[{Exp[-u^2], (1 / 2) * Sqrt[Pi] * Erf[u]}, {u, 0, 5}]
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*Out[ ]=*