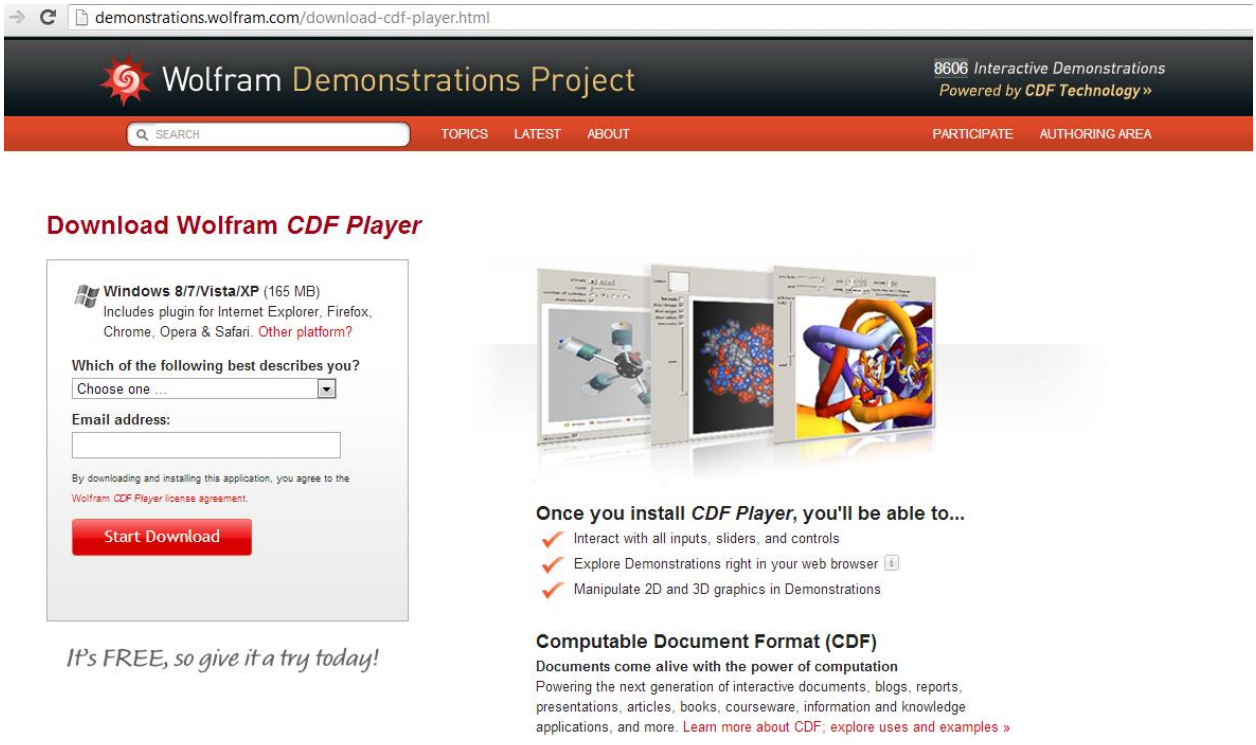
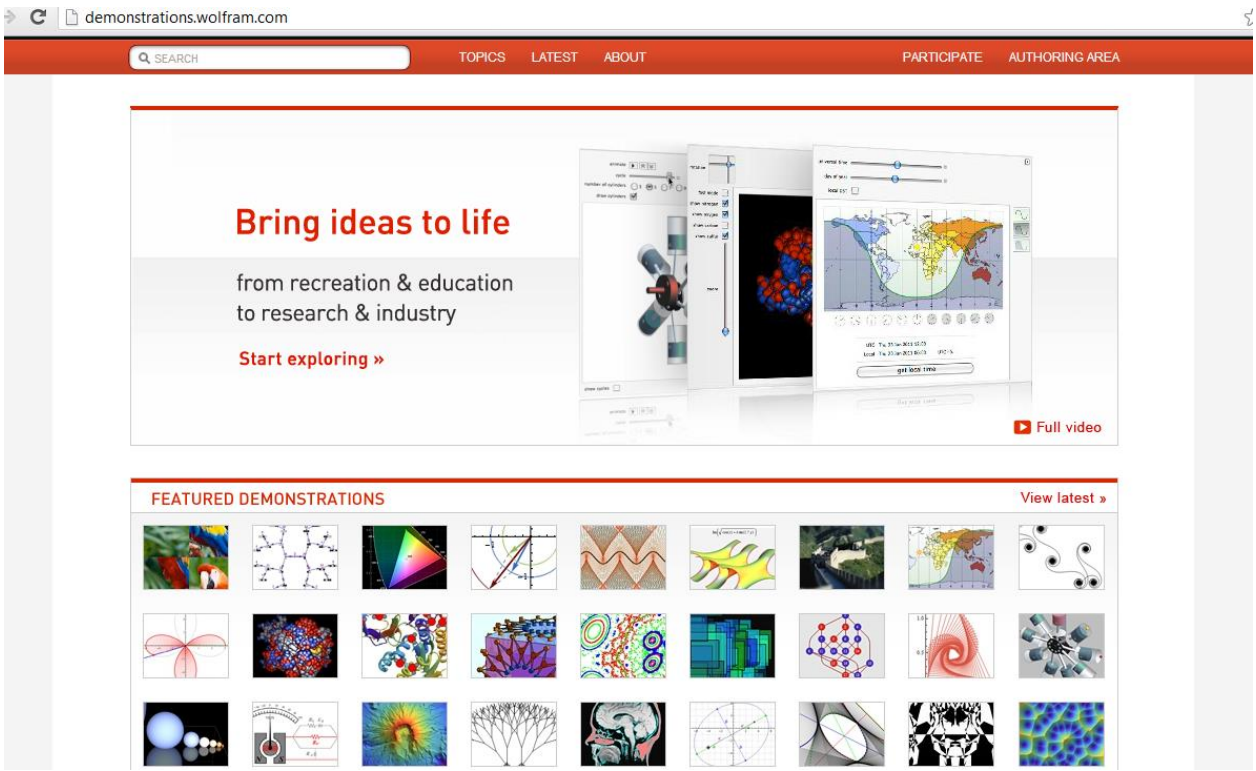
Classes 12. *CDF Player. Demonstration projects.*

WebMathematica: analytical and visualization possibilities.

Programming elements. Simulation.





http://www.wolfram.com/products/webmathematica/

I. Please refer to the material "New features of webMathematica":

reference.wolfram.com/mathematica/webMathematica/tutorial/NewFeatures.html

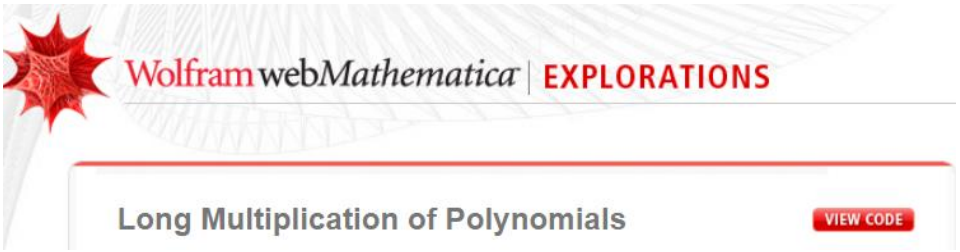
- What Is web*Mathematica*?

- Examples;

- Online Documentation.

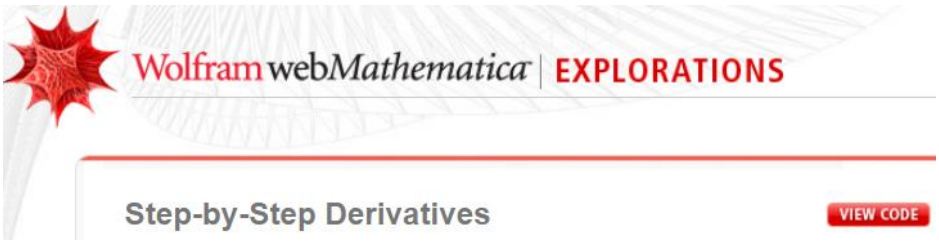
Solve the following exercises Using web*Mathematica*.

http://library.wolfram.com/webMathematica/Education/LongMultiply.jsp



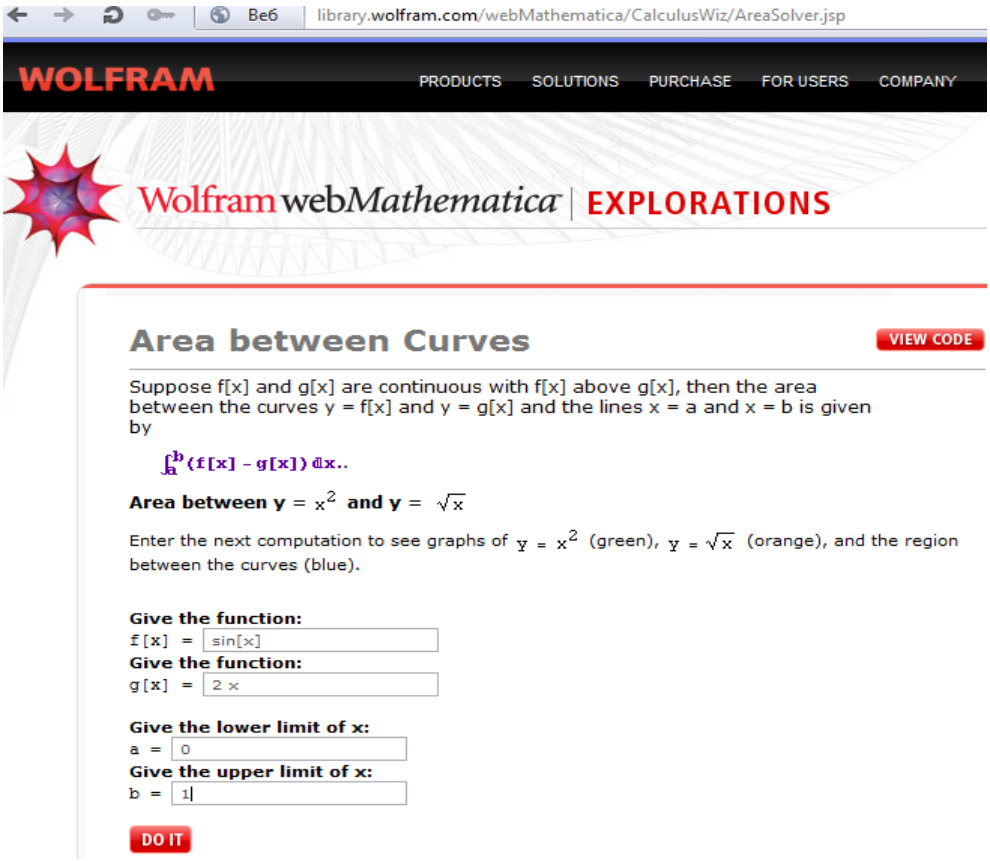
Exercise 1. Find the partial fraction decomposition of $\frac{x^2-4x+8}{(x^2-4)(x^2-4)}$.

http://library.wolfram.com/webMathematica/Education/WalkD.jsp

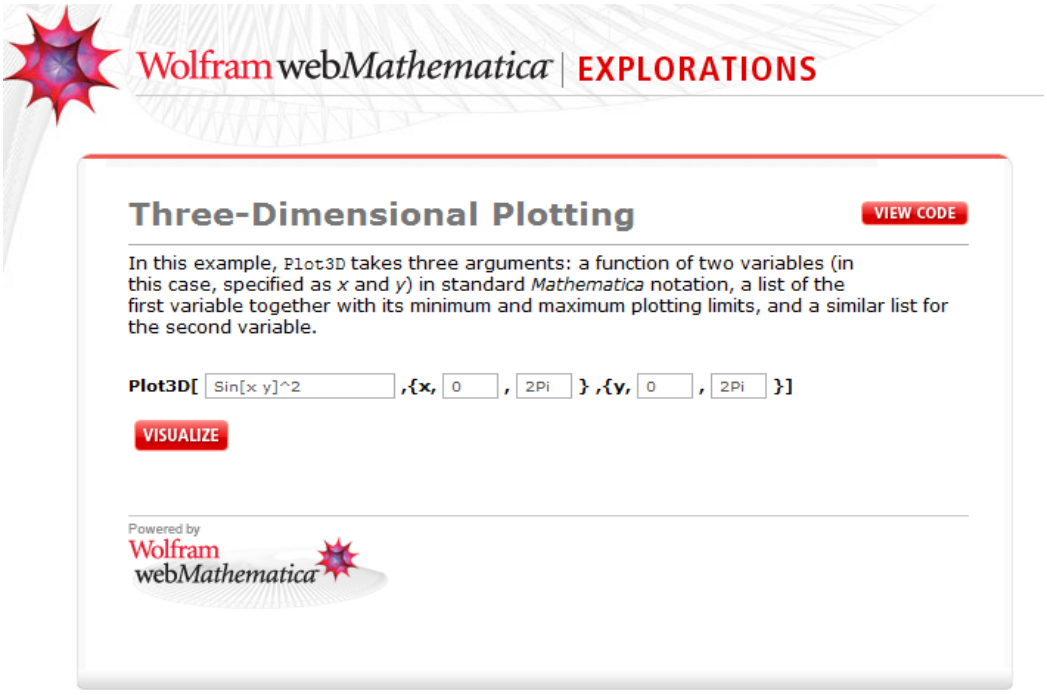


Exercise 2. Calculate derivative f', f'' for functions

a) $f = \cos(2 \ln x)$; b) $f = e^{\sin(x+\pi)}$; c) $f = \frac{x^5+8}{(2x-3)^2}$.



Exercise 3. Calculate the area between the curves $y=\cos x$ and $y=\sqrt{x}$, where $0<x<3\pi$.



Exercise 4. Draw a graph of the surface $z=x-2\cos^4(xy)$, where $-\pi\le x\le\pi$, $-\pi\le y\le\pi$.