

Project 1

This project is designed to get you familiar with the syntax of Mupad. Refer to the primer for any specific problems.

Demand line equation(d1):

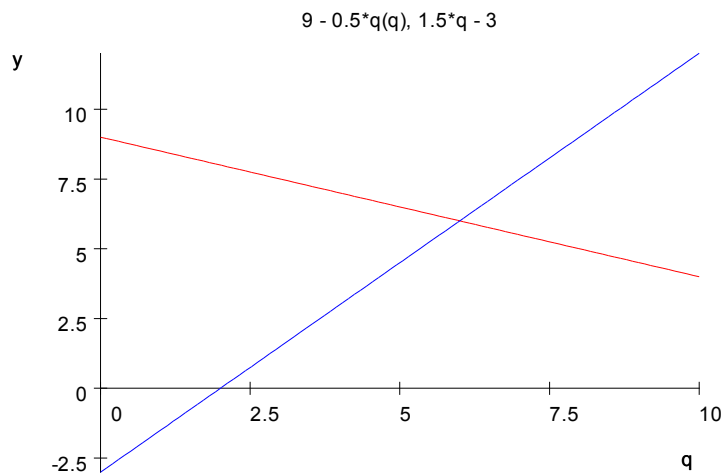
$$p = -.5q + 9,$$

Supply line equation(s1):

$$p = 1.5q - 3,$$

where p is price and q is quantity demanded.

a graph of these equations looks like this in Mupad:

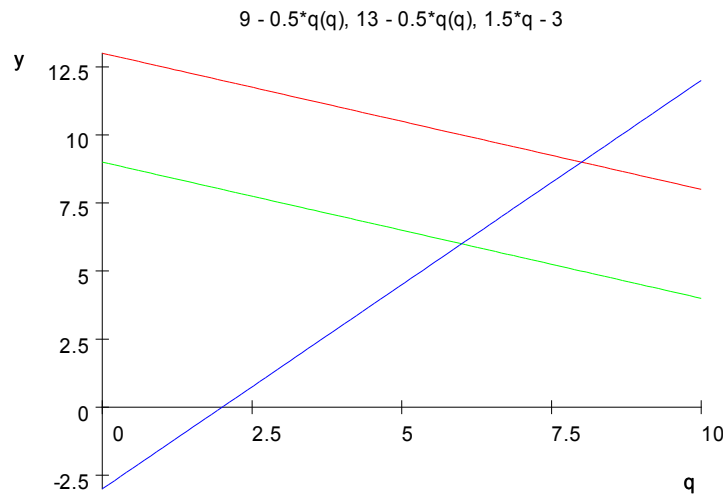


Try to reproduce this graph. Then, let's see what happens when the demand line shifts upward and to the right.

Now add a new demand equation(d2):

$$p = -.5q + 13,$$

The graph should look something like this:

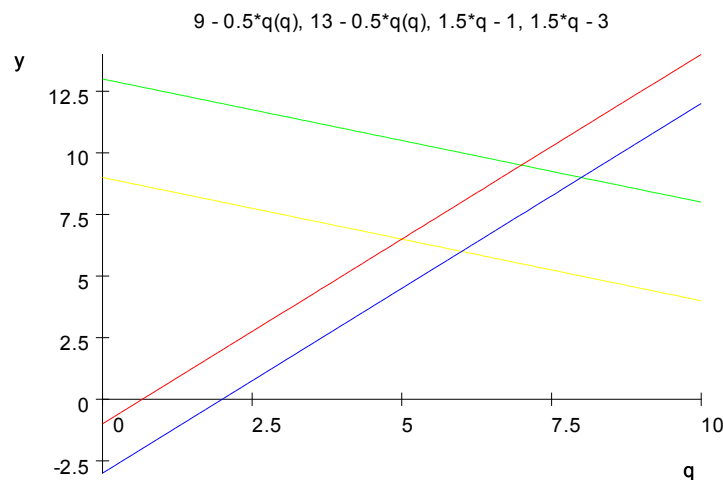


Don't worry if the colors do not match, this is simply a matter of the order in which you enter the equations in the plotfunc2d().

Now let's initiate a shrink in supply represented by the supply equation line moving up and to the left.

Now add a new supply equation(s2):
 $p = 1.5q - 1$,

The graph should look like this:



Now that we have these four equations in Mupad, find the price and quantity demanded for each of these situations in Mupad: (d1,s1), (d2,s1), (d1,s2), (d2,s2). Look at the solve section in the primer for help.