For comments, corrections, etc…Please contact Ahnaf Abbas: ahnaf@mathyards.com

Sharjah Institute of Technology

معهد الشارقة للتكنولوجيا
SHARJAH INSTITUTE OF TECHNOLOGY

Tutoring Sheet #3
Basics III – Graphing

1. Sketch the graph of each equation :
   a. $5x - 3y = 15$
   b. $2x + 7y - 21 = 0$
   c. $y - 2x = 0$
   d. $p = 6q + 3$ and $p = 19 - 2q$ on same diagram.

2. The functions f(x) and g(x) are given by :

   $f(x) = 4x^2 - 8x - 1$, $g(x) = -4x^2 - 2x - 1$

   Sketch the graphs of $y = f(x)$ and $y = g(x)$ for $x > 0$ on the same diagram, and determine the positive value of x at which these two graphs intersect.

3. The supply equation for a good is $q = p^2 + 7p - 2$ and the demand equation is $q = -p^2 - p + 40$ where p is the price. Sketch the supply and the demand functions for $p \geq 0$ Determine the equilibrium price and quantity.

4. Sketch the curves with equations :$y = 2x^2 + 3x - 5$ and $y = 6x + 4 - 4x^2$ on the same diagram,indicating where each curve crosses each of the axes.
   Determine the value of x for which the two curves intersect.

5. The supply equation for a good is $q = 4p - 2$ and the demand equation is $q = -2p^2 - 6p + 98$ where p is the price. Sketch the supply and the demand functions for $p \geq 0$ Determine the equilibrium price and quantity.