Name: _____   **Date:** _____

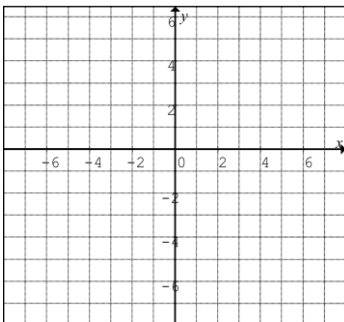1. Solve the following by graphing.
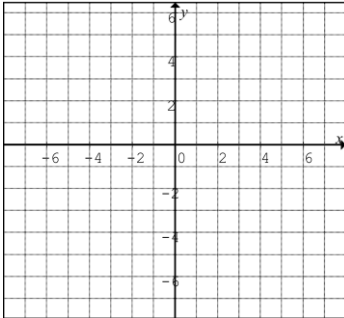
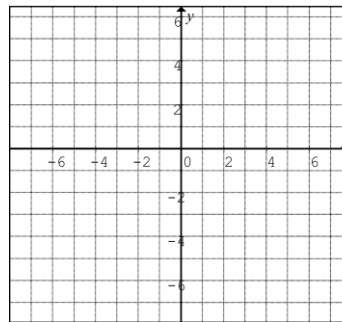|	
a) $3x - 4y = 8$ $2y - 3x = 2$	b) $y - x^2 = -5$ $y - 2x = -2$
c) $y + 5 = (x - 2)^2$ $y - 5 = -(x - 4)^2$	d) $xy = 6$ $y - 2x = 4$
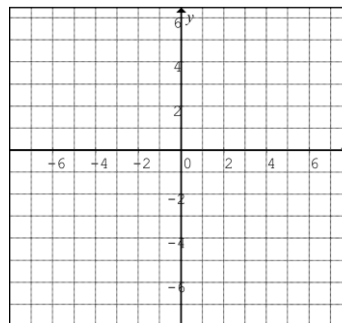
2. Solve by using the graphing calculator.

a) $y = x^2 - 4$ $y = 2x - 5$	b) $y = x^2 + 4x + 3$ $2y = x + 10$
c) $x^2 + y^2 = 9$ $y = x^2 - 3$	d) $x - 2y + 1 = 0$ $xy = 6$

e) $x^2 + 4y^2 = 16$ $y = 2 - x^2$	f) $y = x^2 - 6$ $xy = 5$

3. Solve algebraically.

a) $2x - y = 3$ $3y + 2x = 15$	b) $x - 2y = 12$ $2y + 3x = 8$
c) $y = x^2 + 6x + 5$ $3y + x = -15$	d) $xy = -4$ $3x - 2y = -10$
e) $x^2 + y^2 = 13$ $2x + 3y = 13$	f) $4x^2 + y^2 = 16$ $y = x^2 - 4$

g) $x^2 + y^2 - 6y = 1$ $xy = -6$	h) $y^2 = -27x$ $x^2 = 8y$

4. Three footballs and one soccer ball cost $155. Two footballs and three soccer balls cost $220. Determine the cost of one football and the cost of one soccer ball.

5. For the athletic banquet, one adult ticket cost $15.00 and one student ticket costs $10.00. One hundred forty tickets were sold. The total receipts were $1600. How many student tickets were sold?

6. A crate of 36 grapefruit has a total mass of 4 kg. When 12 grapefruit are removed, the total mass is 3 kg. Determine the mass of the crate and the mass of one grapefruit.

7. Jennifer invested $500, part at 7% per annum and the rest at 10% per annum. After one year, the total interest earned was $44. How much did Jennifer invest at each rate?