## Maths HL9 Extended - Drawing and sketching quadratics

1. a) Construct a TOV for  $y = 6 + 3x - x^2$  of x from -2 to 5 and use the values to plot the graph

b) On the same set of axis draw the graph  $y = \frac{1}{2}x - 1$ 

c) Use your graph to solve  $6 + 3x - x^2 = \frac{1}{2}x - 1$ 

2. i) Sketch the following graphs

ii) State the equation of the line of symmetry

a. 
$$x^2 - 3x - 10$$

b. 
$$-2x^2 + 3x + 8$$
  
c.  $(x-2)^2 + 5$   
d.  $x^2 - 4x - 7$ 

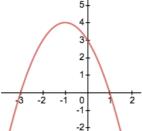
c. 
$$(x-2)^2 + 5$$

d. 
$$x^2 - 4x - 7$$

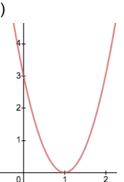
3. State the equation for each graph

a)





c)



d)

