

Function	$f_1(x) = (x+1)(3-x)$	$f_2(x) = x^2 + 2x - 8$	$f_3(x) = 2(x-0.5)^2 + 2$
Roots	The roots are -1 and 3	The zeroes are -4 and 2	There is no root
Axis of Symmetry	Equation of the axis of symmetry $x = 1$	Equation of the line of symmetry $x = -1$	The axis of symmetry has equation $x = 0.5$
Coordinates of Vertex	Turning point (1 , 4)	Vertex (-1 , -9)	Turning point (0.5 , 2)
Y-intercept	The y-intercept is 3	The y-intercept is - 8	The y-intercept is 2. 5
Graph			

Function	$f_4(x) = -2x(x+3)$	$f_5(x) = 0,5(x+3)^2$	$f_6(x) = 2x^2 - 8x + 9$
Roots	The x-intercepts are 0 and - 3	The x-intercept is - 3	There is no root
Axis of Symmetry	Equation of the axis of symmetry $x = - 1. 5$	Equation of the line of symmetry $x = - 3$	Equation of the line of symmetry $x = 2$
Coordinates of Vertex	Turning point (1. 5 , 4. 5)	Vertex (- 3 , 0)	Turning point (2 , 1)
Y-intercept	The y-intercept is 0	The y-intercept is 4.5	The y-intercept is 9
Graph			

Function	$f_7(x) = -2(x-1)^2$	$f_8(x) = 2x^2 - x - 1$	$f_9(x) = -3 - (x-2)^2$
Roots	Only one zero : 1	The two roots are - 0,5 and 1	No root
Axis of Symmetry	Equation of the line of symmetry $x = 1$	The axis of symmetry has equation $x = 0.25$	The axis of symmetry has equation $x = 2$
Coordinates of Vertex	Vertex : (1 , 0)	Coordinates of the vertex (0.25 , - 1.125)	Vertex (2 , - 3)
Y-intercept	The y-intercept is -2	The y-intercept is -1	The y-intercept is -7
Graph			