

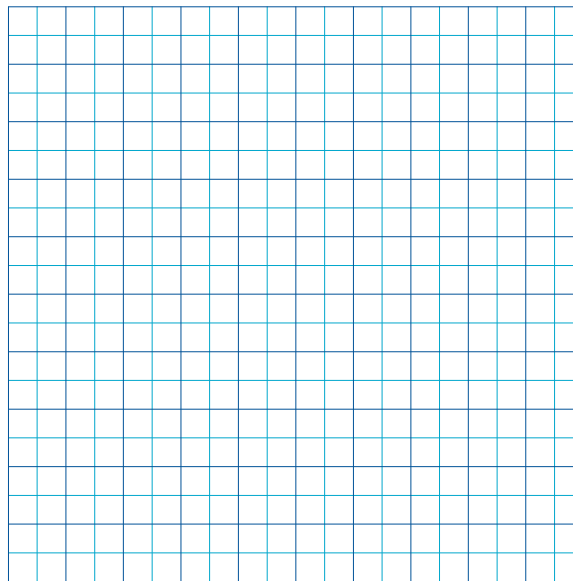
Use the graphing calculator and your algebra skills to find the required information; (16 marks)

Find

- (i) X intercepts, (ii) Y intercept, (iii) Axis of symmetry
(iv) Vertex (v) another form of the quadratic (standard or factored)
(vi) make an accurate and detailed sketch on the provided graph insert

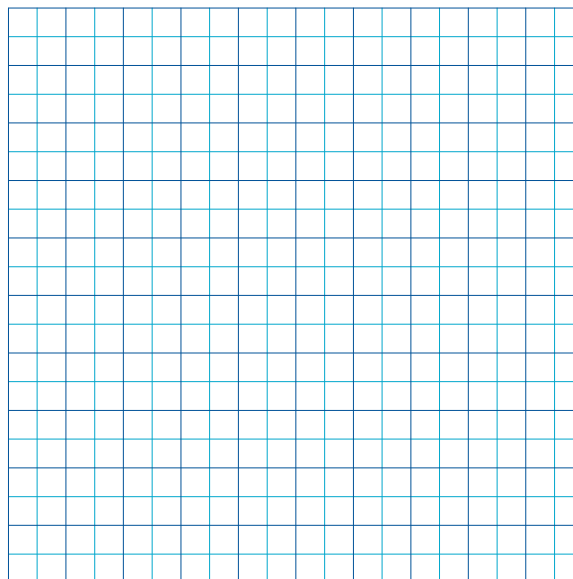
a) $y = -0.25(x - 6)(x + 2)$

$y = \underline{\hspace{2cm}}$ (standard)



a) $y = 2x^2 - 8$

$y = \underline{\hspace{2cm}}$ (factored)



Determine the equation of the quadratic that has zeros of $(-4,0)$ and $(2,0)$ and passes through the point $(1, 3)$. (4 marks)

Determine the missing form (standard or factored) for the following: (6 marks)

(a) $y = 3(x+1)(x-3)$ (b) $y = 5x^2 - 75$

Using the **graphing calculator** solve the following quadratic equations for BOTH solutions – rearrange the equation **or** plot two separate functions – you may have to adjust the window of the calculator to see your answers. (6 marks)

(a) $6 = -4(x+1)(2x-3)$ (b) $x^2 = 2x+5$ (c) $18 = -2x^2 + 24x$