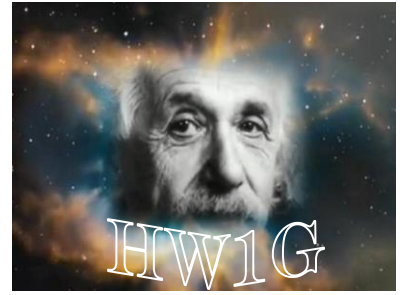


Using the formula: $x = \frac{-b}{2a}$, sketch each parabola. Label the vertex, and axis of symmetry.



1a) $y = x^2 - 6x$ 1b) $y = x^2 - 6x + 6$
 Sketch both 1a & 1b on the same set of axes.

2a) $y = -x^2 + 4x$ 2b) $y = -x^2 + 4x - 4$
 Sketch both 2a & 2b on the same set of axes.

3) $y = (x - 4)(x + 2)$ 4) $y = x^2 + 3x - 10$ 5) $y = -2x^2 + 8x + 5$

Use “complete the square” to sketch each parabola. Label the vertex, and axis of symmetry.

6) $y = x^2 - 2x - 7$ 7) $y = x^2 + 4x + 9$ 8) $y = 4x^2 - 8x + 2$

9) $y = -3x^2 - 12x - 3$ 10) $y = \frac{1}{2}x^2 + 4x + 8$ 11) $y = -\frac{1}{3}x^2 + 2x + 1$

Find the coordinates of any points of intersection by solving algebraically. Check answers using a graphing calculator.

12) $y = 4 - 2x$ 13) $y + x = -6$
 $y = x^2 - 6x + 8$ $y = x^2 + 6x$

For all graphs, see Mr. Paull	3) V(1, -9); x = 1	8) V(1, -2)
1a) V(3, -9); x = 3	4) V(-1.5, -12.25); x = -1.5	9) V(-2, 9)
1b) V(3, -3); x = 3	5) V(2, 13); x = 2	10) V(-4, 0)
2a) V(2, 4); x = 2	6) V(1, -8); x = 1	11) V(3, 4)
2b) V(2, 0); x = 2	7) V(-2, 5); x = -2	12) (2, 0)
		13) (-1, -5) & (-6, 0)