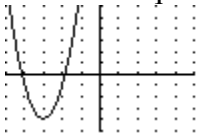


1.  $f(x) = 5x^2 - 7x + 3$  Find the x-coordinate of the Vertex.

2.  $f(x) = 3(x - 2)(x + 8)$  Write in General Form.

3. Write the equation of the parabola.



4. Given x-intercepts -3 and 7 and a point (5, 10). Write the equation of the parabola.

5.  $f(x) = 3x^2 - 30x + 7$  Write in Vertex Form by Completing the Square.

6.  $f(x) = -2x^2 - 10x + 4$  Find the Vertex.

7. Given a Vertex at (4, -2) and a point at (6, 1). Write the equation of the parabola.

8.  $f(x) = x^2 + 4x - 45$  Write in Intercept Form.

9.  $f(x) = -4(x - 3)^2 - 2$  Write in General Form.

10.  $6x^2 + 5x - 4$  Factor.

11. The parent function,  $f(x) = x^2$  is vertically stretched by a factor of 3, translated 5 units left, and translated 2 units down. Find the new function.

12. Given points (1, 2), (3, 7), (4, 11), (5, 6), (7, 4). Using a calculator, write the equation of the best fit parabola. Use at least 3 decimal place accuracy.

13. Using the points in #12 and the calculator find  $f(29.7)$