Algebra 2 - Eagle Pride

I can determine the roots of a parabola.

1) $y = 3(x - 4)^2 - 7$
   a) What are the roots?
   b) How can I approximate the roots on my graphing calculator?

2) $y = -2(x - 8)(x + 1)$
   a) What are the roots?
   b) How can I approximate the roots on my graphing calculator?

3) $y = x^2 + 8x + 12$
   a) What are the roots?
   b) How can I approximate the roots on my graphing calculator?

# Algebra 1 - Eagle Pride

Quadratics and Lines

1) Write the equation of the line through the points (1, -2) and (3, 5)
   a) Graph the line.
   b) Find the y-intercept.

$y = mx + b$

2) Write the equation of the parabola that has two x-intercepts of (3, 0) and (-1, 0)
   a) Find the vertex of the parabola
   b) Find the standard form of the equation
   c) Find the y-intercept

3) Find two ordered pairs that are on the line $y = 3x + 1$.

4) The equation of a parabola is given by $y = x^2 - 4x - 5$
   a) Find the vertex.
   b) Find the x-intercepts.

Math Analysis - Eagle Pride

1) **Graph each ordered pair and connect them in the order they are given. (black)**

   **B(-5, 2) A(-3, -5) D(-1, 0) G(0, 2) E(3, 2) R(5, 1)**

2) **Translate the figure right 3 spaces. (Red)**

3) **Translate the figure left 2 spaces. (Blue)**

4) **Translate the figure up 4 spaces. (Green)**

5) **Translate the figure down 4 spaces. (Purple)**

6) **Reflect the figure across the x-axis (Orange)**

7) **Reflect the figure across the y-axis (Brown)**

8) **Reflect the figure over the line y = -x. (Pink)**

9) **Find the inverse of the figure. (Light Green)**