DO NOT USE A CALCULATOR FOR ANYTHING. CALCULATOR FREE HOMEWORK!

Graph the functions below using the INTERCEPT METHOD. For each graph, find other points besides the x-intercepts and the vertex by using an H-chart.
(Remember to find a point on the other side of the x-axis from location of the vertex.)

1. \( f(x) = -(x + 4)(x + 6) \)

IN THE BOX BELOW, FILL IN THE REQUESTED INFORMATION.

axis of symmetry: __________
vertex: ________________
Is the vertex a maximum or minimum POINT? (Circle the correct type.)
What is the maximum / minimum VALUE of the function? (Circle the correct type.)
x-intercepts: __________________
(as ordered pairs)

2. \( f(x) = \frac{1}{3}(x + 2)(x - 4) \)

IN THE BOX BELOW, FILL IN THE REQUESTED INFORMATION.

axis of symmetry: __________
vertex: ________________
Is the vertex a maximum or minimum POINT? (Circle the correct type.)
What is the maximum / minimum VALUE of the function? (Circle the correct type.)
x-intercepts: __________________
(as ordered pairs)
3. \( f(x) = 2(x-1)(x-4) \)

4. \( f(x) = -3(x-2)(x+2) \)

5. \( f(x) = x(x+6) \)

From the text book pages 63 and 64, complete problems # 66 and 79 using your GRAPHING CALCULATOR. On a separate piece of paper, draw a sketch of what you see in your calculator window for each problem. Then complete the problem and answer all questions.