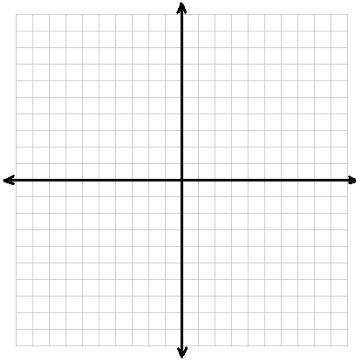


Characteristics of Polynomial Functions – in book: Section 7.1 p. 438

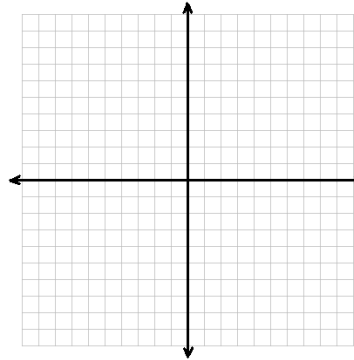
For each of the following: Factor, find the zeros, find where the graph is increasing and decreasing(+,- chart), sketch graph and estimate extrema

1. $f(x) = x^3 + x^2 - 9x - 9$



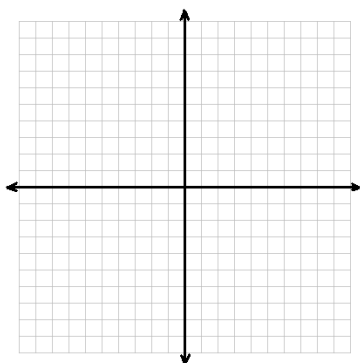
Zeros:
Extrema:
Increasing:
Decreasing:

2. $f(x) = x^3 + 3x^2 - 4x$



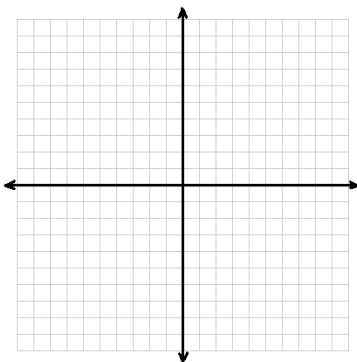
Zeros:
Extrema:
Increasing:
Decreasing:

3. $f(x) = x^2 - 6x + 5$



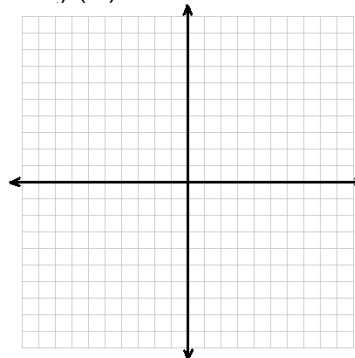
Zeros:
Extrema:
Increasing:
Decreasing:

4. $f(x) = 2x^2 + 5x - 3$



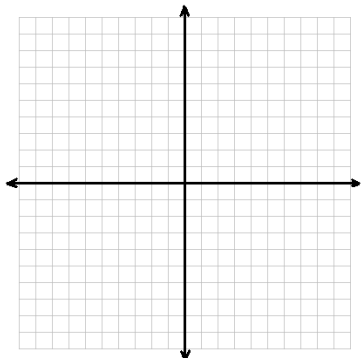
Zeros:
 Extrema:
 Increasing:
 Decreasing:

5. $f(x) = -3x^2 + 9x$



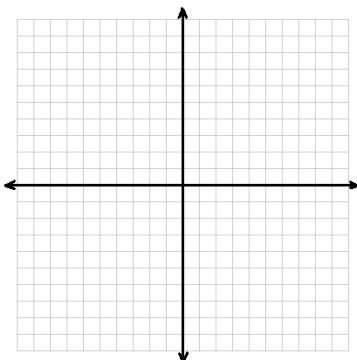
Zeros:
 Extrema:
 Increasing:
 Decreasing:

6. $f(x) = x^3 + x^2 - 2x$



Zeros:
 Extrema:
 Increasing:
 Decreasing:

7. $f(x) = x^4 - 10x^2 + 9$



Zeros:
 Extrema:
 Increasing:
 Decreasing:

