# Exam 2: Supplemental Assignment

1. Consider the function

$$f(x) = x + \frac{25}{x}$$

    a) Find the first derivative, f'.

    b) State the intervals on which f increases/decreases.

    c) Give the coordinates of all relative max/mins, if any.

    d) Find the second derivative, f''.

    e) State the intervals on which f is concave up/down.

    f) Give the coordinates of all inflection points, if any.

2. Consider the function f graphed below. (Each tick mark is 1 unit.)
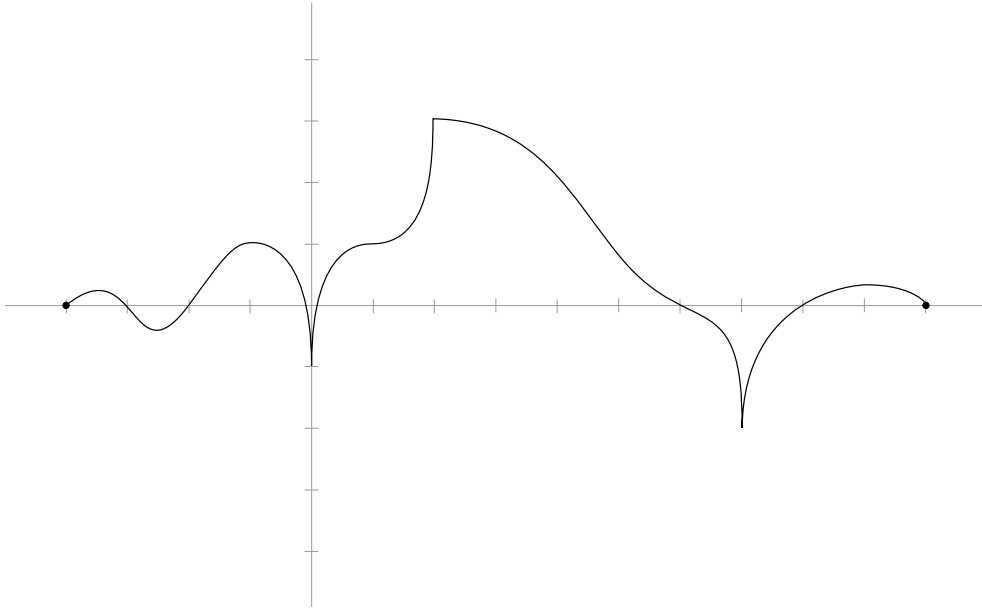
    a) State the (approximate) intervals on which f' is positive/negative.

    b) State the (approximate) intervals on which f'' is positive/negative.

    c) Give the (approximate) coordinates of all the ...

        i) relative maximum points

        ii) relative minimum points

        iii) inflection points