

## Part I (due at the beginning of class Monday, November 10)

Finish up the Graphing and Asymptotes handout if you didn't finish it on Wednesday in class.

## Part II: WeBWorK (due Saturday, November 8, by 11 PM)

[Click here for your WeBWorK assignment](#). Complete the DW 26 WeBWorK assignment.

**Note on WeBWorK:** While it's not due until Saturday at 11, it's a good idea to do it earlier as part of your review for Friday's Celebration of Learning.

## Part III: Homework Problems (due FRIDAY, November 14 at the beginning of class)

1. A toy manufacturer has determined that the cost for producing their popular artist's easel for children can be modeled by the function  $C(x) = \frac{1}{2}x^2 + 15x + 5000$ , where  $x$  is the number of easels they produce. They want to minimize their costs, so they ask you what number of easels they should aim to produce in order to minimize the cost per easel (so  $C(x)/x$ ). Use the second derivative test to answer their question.
2. Sketch a graph of  $f(x) = x^5 - 15x^3$ , considering intercepts, domain and range, asymptotes, increasing/decreasing behavior, local extrema, concavity, and points of inflection. Make sure to include your work for each of the features. You are welcome to check your sketch using Desmos, but you need to sketch the graph first.

## Friday's Celebration of Learning

Friday's Celebration of Learning will include problems on learning targets L6, D1–D9, A1, A2, A3, and A5.