

HOMEWORK 2

MATH 243

10.1.40

You'll find the discussion of the cycloid in the textbook/lecture helpful. What changes for the trochoid? What stays the same?

Include a diagram similar to Figure 14 to illustrate your explanation of the parametric equations. Make sure that your two sketches of the trochoid demonstrate your ability to sketch them without a computer, but do use a calculator/internet to check your work.

10.1.43

Maria Agnesi wrote the first calculus textbook, published in 1748. She picked this curve to use as one of the examples in her book, and her name has stuck with it ever since.

Include the diagram given in the problem in your solution. You may want to add some more labels to the diagram so that you can refer to them in your explanation of the parametric equations. As before, make sure that your sketch of the witch demonstrates your ability to sketch it without a computer, but do use a calculator/internet to check your work.