

# Math 1152 Written Homework 10

**Due:** Thursday, July 28th in Gradescope.

- Calculators are permitted EXCEPT those calculators that have symbolic algebra or calculus capabilities.
- SHOW ALL WORK!
- A completed version of this document is due to be uploaded to Gradescope by 11:59pm on **Thursday, July 28th**.
- If you have difficulties using Gradescope, see pages under the Gradescope header in the Modules section of our Carmen page for help.
- Ideally, this can be completed on an iPad or android tablet using an app like One Note, Notability, Papyrus, etc. - if you don't have access to one of these options, then printing and scanning or using a smartphone document-scanning feature to generate a pdf to upload will also work.
- If you have difficulties uploading the assignment, email a pdf to your recitation instructor.
- This homework will be graded via random subset selection - not every part of every question will be looked at by the grader.
- Rubrics to applicable questions will be provided later.

**Question 1.** Suppose that

$$x(t) = t^3 - 3t,$$

$$y(t) = t^2.$$

- a.) Find the equation for the tangent line to the curve given by  $(x, y)$  at the point  $(2, 1)$ .
- b.) Solve for the coordinates of all points, if any, at which there is a horizontal tangent line.