## Math-1003b Homework #14

## Reading

• Sections 11.1, 11.2, 11.4, 11.5

## **Problems**

Consider the following general form of a parabola:

$$y = 2x^2 - 3x - 3$$

- 1). What are its *y*-intercepts (if any)?
- 2). What are its x-intercepts (if any)? You may either complete the square or use the quadratic formula.
- 3). Convert the general form to standard form. You must complete the square; any other method receives no credit.
- 4). Where is the vertex?
- 5). Sketch the parabola. The vertex and all intercepts must be labeled for full credit.