Written Homework

Your carefully written solutions to the following questions will be due at the beginning of class on Monday, April 26.

1. Find the x-coordinates of all the points on the parabola $y = x^2$ where the tangent lines pass through the point $(1, -3)$

2. The line $2x - y = b$ is tangent to the parabola $y = ax^2$ at the point where $x = 2$. Find $a$ and $b$.

3. How many tangent lines to the curve $y = \frac{2x}{x+1}$ pass through the point $(2, 4)$? At which points do these tangent lines touch the curve? Illustrate with a graph.