PROBLEM SET 8, DUE DECEMBER 7TH 6TH

(1) Prove that if $(c, a) \in \mathbb{R}^2$ satisfies $0 < c < 2$ and $a^2 = c^3 - 4c + 4$, then $(|a|, 2 - c, c)$ occur as the three sides of a triangle.

(2) Provide an example of a triangle with integers as sides, not similar to one of the examples in the text, having the property that the bisector in A and the median in B and the altitude in C are concurrent.