No integers allowed!
Due: November 11th

1. Show that $15x^2 - y^2 = 9$ has no integer solutions.
2. Show that there are no nontrivial integer solutions $(x,y,z)$ to the equation $x^3 + 3y^3 + 9z^3 - 9xyz = 0$ (where $(x,y,z) = (0,0,0)$ is the trivial solution)