

Challenge 1

Name:

Date: June 18, 2015

P 1 (Putnam). If a_0, a_1, \dots, a_n are real numbers satisfying

$$\frac{a_0}{1} + \frac{a_1}{2} + \dots + \frac{a_n}{n+1} = 0,$$

show that the equation

$$a_0 + a_1x + a_2x^2 + \dots + a_nx^n = 0$$

has at least one root.