

Name: _____

Math Club: Contest Week One

Release Date: September 7, 2022

Instructions: Solve the following problem the best you can, first to submit the correct solution via email or the secretaries in Room 332 (with time stamp) wins!

Problem 1. Given

$$x^2 + p_1x + q_1 = (x - a_1)(x - b_1)$$

$$x^2 + p_2x + q_2 = (x - a_2)(x - b_2).$$

Rewrite the expression

$$(a_1 - a_2)(a_1 - b_2)(b_1 - a_2)(b_1 - b_2)$$

in terms of p_1, q_1, p_2 , and q_2 .