

Name: \_\_\_\_\_

**Math Club: Contest Week Five**

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**Release Date:** April 5, 2023

**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.** Suppose we have 11 identical wooden blocks  $2\text{ cm} \times 3\text{ cm} \times 5\text{ cm}$  in dimension and wish to build a tower 32 cm high. If the blocks are stacked flat on top of each other with random orientations what is the probability that after all 11 blocks are stacked a 32 cm tower is produced.