Time limit: 15 minutes.

Instructions: This tiebreaker contains 3 short answer questions. All answers must be expressed in simplest form unless specified otherwise. You will submit answers to the problem as you solve them, and may solve problems in any order. You will not be informed whether your answer is correct until the end of the tiebreaker. You may submit multiple times for any of the problems, but **only the last submission for a given problem will be graded**. The participant who correctly answers the most problems wins the tiebreaker, with ties broken by the time of the last correct submission.

No calculators.

1. Connie owns a small farm and grows mangos and pineapples. After one harvest she increased her mango supply by 50% but also sold half of her pineapples. Given that she has a net loss of 10 fruit after the harvest, and that she has the same number of mangos as pineapples after the harvest, how much fruit did she initially have?

2. Three identical circles of radius 3 lie externally tangent to each other. A fourth, larger circle is drawn around the other three circles so that the smaller three circles are internally tangent to the larger circle. Compute the radius of the larger circle.

3. How many ways are there to partition 11 into a sum of an odd number of odd positive integers? Order does not matter, so $11 = 3 + 3 + 5$ and $11 = 3 + 5 + 3$ should be counted only once.