



# Double or Nothing

**Math Concepts:** Doubling  
**Materials:** 120 counting board (optional)  
**Players:** 2-4

**Set up:** Players start the game by secretly picking 5 distinct numbers larger than 20 and not more than 120. After all selections are made, they are written where all can see them.

**Play:** Using Number Cards or some other device, a random number from 1 to 20 is created. That number is repeatedly doubled until either someone's number is hit for the first time or the number becomes bigger than 120.

**Goal:** The first player to have all five numbers hit is the winner.

## – DISCUSSION AND TIPS –

Discuss some numbers that are very poor choices. For example, 46 is not a power of 2 times some number between 1 and 20 – it will never get hit.

Discuss some numbers that are very likely to get hit. For example, numbers with lots of factors of 2, such as 32, are more likely to be hit because more starting numbers can get to them.

Some variations that replace doubling are listed below. Some variations may produce more interesting playing possibilities than others – what contributes to a variation being more interesting?

## – VARIATIONS –

Instead of doubling the number each time, you can triple it.

Instead of doubling the number each time, you can double it and add 1 each time.

For younger players, change the range of numbers - select numbers above 10 and not above 60, and select a random number from 1 to 10.