

Let's start by looking at the probability of each possible single jump outcome for each height.

1-meter success: $6/10$

1-meter miss: $4/10$

1.5-meter success: $3/10$

1.5-meter miss: $7/10$

The problem states that Alli successfully grabs 2 oranges, so we know that one of our 5 attempts will have an associated probability of $6/10$ and the other will have an associated probability of $3/10$. The remaining attempts will either have an associated probability of $4/10$ or $7/10$. Since we are looking for the probability of the MOST LIKELY outcome, we want to have as many $7/10$ s as possible. To do this, Alli would have to get an orange from the 1-meter high branch on the first attempt. Attempts 2 through 4 would have to be misses at the 1.5-meter high branch followed by 1.5-meter high success on the 5th attempt. The probability associated with this outcome is:

$$(6/10)(7/10)(7/10)(7/10)(3/10) = 6174/100,000 = 3087/50,000.$$