For example, for 99: the number I chose to divide 99 with was 32/33. This does not give us a prime number when the resultant number is subtracted by one. We also choose the largest factor as our goal is to make the peaches last as long as they can. The answer you get is 14 days, using the following combination of fractions: 32/33 17/19 41/42 7/9 29/31 17/19 23/25 8/9 12/13 5/77/8 4/5 3/5 1/2 The remainder you get is 3, and as 3 is a prime number, it can not be divided further, as per the rules given. Hence the answer is 14 days.