

Hint for Problem 235

Notice that it is straightforward to figure out how many ways we may pass out the apples so that child i gets five or more apples: give five apples to child i and then pass out the remaining apples however you choose. And if we want to figure out how many ways we may pass out the apples so that a given set C of children each get five or more apples, we give five to each child in C and then pass out the remaining $k - 5|C|$ apples however we choose.