Santa's Gift Distribution Order

Enigma nº7

 $19^{\rm th}$ December 2024

Santa is planning the perfect gift distribution for a family gathering. He has 10 gifts for kids and 10 gifts for adults, and he needs to arrange the order in which the gifts are handed out.

However, there's one important rule: at no point during the distribution should the number of adult gifts given out exceed the number of kids' gifts.

For example, a valid distribution order could be: Kids, Kids, Adults, Kids, Adults, Adults..., while an invalid one might start as: Adults, Adults, Kids....

How many different valid ways can Santa arrange the distribution of the 20 gifts under this rule?

