

Bennett, Burton and Nelson: Puzzler §5.2

1. After a cake has been cut into three equal pieces, as shown here, a hostess discovers that four people each want an equal share of the cake. How can she make one more straight cut so that each of the FOUR people gets the same amount of cake? Note: The WHOLE cake needs to be eaten.

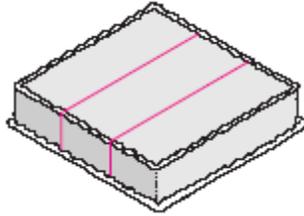


Figure 1

2. After a cake has been cut into three equal pieces, as shown here, a hostess discovers that FIVE people want to equally share the cake. Can the hostess make 1 more straight cut to do this? If not, what is the least number of additional cuts that she needs to make? Hint: four more cuts are too many!