

[10-11-02-T21]
counting combinations

■ **Question # 1**

How many ways are there to distribute 2 bears and 7 dolls to 3 children so that each child receives 3 gifts?

[a] Work the problem stated above using only the following two cases:

Case 1. One child receives two bears.

Case 2. Two children receive one bear each.

[b] Convince yourself that considering only the two cases produces the correct answer the problem. Think how you would explain this tomorrow in class.

■ **Question # 2**

A delegation of 4 students is selected each year to attend a national spelling bee. (a) In how many ways can the delegation be chosen if there are twelve eligible students? (b) In how many ways if 2 of the eligible students will not attend the meeting together?