

- 6** A Social Club has 15 members, of whom 8 are men and 7 are women. The committee of the club consists of 5 of its members.
- (a)** Find the number of different ways in which the committee can be formed from the 15 members if it must include more men than women. [4]

The 15 members are having their photograph taken. They stand in three rows, with 3 people in the front row, 5 people in the middle row and 7 people in the back row.

- (b) In how many different ways can the 15 members of the club be divided into a group of 3, a group of 5 and a group of 7? [3]

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In one photograph Abel, Betty, Cally, Doug, Eve, Freya and Gino are the 7 members in the back row.

- (c) In how many different ways can these 7 members be arranged so that Abel and Betty are next to each other and Freya and Gino are not next to each other? [3]

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