Please do not write on the subject, and do not forget to hand it back at the end.

PROBABILITIES

A tea company asked 120 people about the types of tea (black, green, white or others) they bought over the previous month.

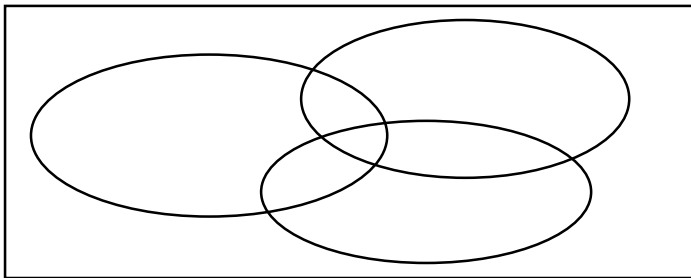Black tea was bought by 40 people, green tea by 30 people, and white tea by 25 people.

8 people bought both black and green tea (and possibly white also).

10 people bought both green and white (and possibly black too).

7 people bought both black and white (and possibly green too).

3 people bought the three types: black and green and white.

1) Represent this situation in a Venn diagram (like the one below).

We select a person at random.

2) What is the probability that this person bought at least one of the three types of tea?

3) What is the probability that this person bought at least two of the three types of tea?

4) What is the probability that this person bought green tea, knowing that he or she bought white tea?

5) What is the probability that this person bought white tea, given that they bought only one of the three types of tea?