4 **(a)** A shop gives each of 1000 people a voucher.
28 people use their voucher.
The shop now gives each of 16 500 people a voucher.

Calculate how many of these 16 500 people are expected to use their voucher.

..... [1]

(b) In a class activity, all the 15 students wear hats.
7 students wear red hats, 6 students wear green hats and 2 students wear white hats.

(i) One of these students is picked at random.

Find the probability that this student wears a red hat.

..... [1]

(ii) Two of the 15 students are picked at random.

Show that the probability that these two students wear hats of the same colour is $\frac{37}{105}$.

[3]

(iii) Three of the 15 students are picked at random.

Find the probability that at least two of these three students wear red hats.

..... [4]