**2B Conditional Probability**

1. A school has 75 students in year 12. Of these students, 25 study only humanities subjects (H), and 37 only study science subjects (S). 11 students study both types of subject.
2. Draw a two-way table to show this information

Find:

1. $P(S^{'}∩H^{'})$
2. $P\left(H\right)$
3. $P(H|S^{'})$
4. Two four sided dice are thrown together, and the sum of the numbers shown is recorded.
5. Draw a sample space diagram showing the possible outcomes
6. Given that at least one dice lands on a 3, find the probability that the sum of the two dice is exactly 5
7. State one modelling assumption used in your calculations