1) We will use combination Formula

   $C(250,2) = \dfrac{250!}{2!(250-2!)} = \dfrac{250!}{(2!)\times(248!)} = 31125$ way

2) we have 3'o and 2'1 so we have 5 bits
   Then the answer is $5! = 120$

3) First bit $=1$, second $=2$, third $=2$, Fourth $=2$, Fifth $=1$
   then the answer is $1\times2\times2\times2\times1 = 8$

4) From 30 members we will choose 3 so we will
   use combination $\rightarrow 30C3 = \dfrac{30!}{3!\times27!} = 4060$

5) each book is distinct so we will choose 3 From 6.
   $= C(6,3) = 20$

6) at least one oF the three tries you roll a 7 $= \dfrac{5}{6}\times\dfrac{5}{6}\times\dfrac{5}{6}$
   $= 0,57 = 57\%$ so it will be $100\% - 57\% = 43\%$

7) we will choose 3 From 6 so $C(6,3) = 20$
   but there are 2 book shouldn't be choosen together $= 4C3 = 4$
   then it will be $= 20 - 4 = 16$

8) ⌠ (a) $C(20,9) = 167960$
   ⌊ (B) $[C(2,2)]^4 \times C(20,4) = 4845$