6 For a randomly chosen person, their next birthday is equally likely to occur on any day of the week, independently of any other person's birthday.

(a) Find the probability that, out of 10 randomly chosen people, none of them will have their next birthday on a Saturday or Sunday. [1]

(b) Find the probability that, out of 10 randomly chosen people, fewer than 3 will have their next birthday on a Wednesday. [3]

(c) Use a suitable approximation to find the probability that, out of 392 randomly chosen people, more than 65 will have their next birthday on a Friday. [5]