

Section 1 - Listing Outcomes – ALWAYS USE A SYSTEMATIC APPROACH!

(1) Fred is on an activity week. He can choose from a morning activity and an afternoon activity. Football (F), Rugby (R) and Cricket (C) are on in both the morning session and the afternoon session. The table below lists some of the options Fred could choose.

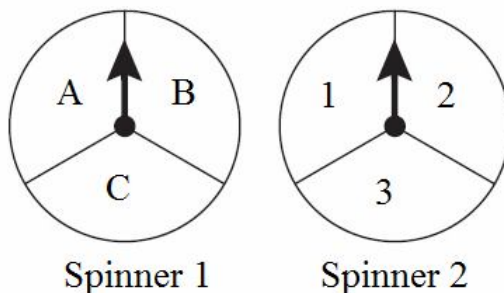
Morning	Afternoon
F	F
F	R
F	C

- (a) Complete the table.
- (b) What is the probability of Fred plays both Rugby in the morning and the afternoon?
- (c) What is the probability of Fred playing Cricket at least once?

(2) Jane is eating at school. She wants one item of food and one drink. The food she can choose from is Pizza (P), Chips (C) or Salad (S). For a drink she can have Water (W), Juice (J) or Milk (M).

- (a) List the possible combinations Jane could choose in a systematic way. *You should have 9 combinations.*
- (b) What is the probability that Jane has Pizza and Milk?
- (c) What is the probability that Jane has Juice?

(3) The two fair spinners below are spun once.



John starts writing down the combinations he could spin on the two spinners.

A1, A2, A3.....

- (a) Complete all the possible outcomes.
- (b) Find the probability of John having an outcome with a vowel in it.
- (c) Find the probability of John having an outcome with a square number in it.

(4) There are 5 types of vegetables on offer. Helen has to choose two that are different. The vegetables are Potato (P) Carrots (C) Broccoli (B) Swede (S) and Leek (L). List the possible combinations Helen could have.

(5) A standard fair 6 sided dice is rolled and a spinner with the letter A, B, C and D is spun. Write down all of the possible combinations when the number rolled is paired with the letter spun.

(6) Jim has shirts, jumpers and t shirts. He can pair these with shorts, trousers or jeans. Write down the possible combinations Jim could choose if he wants to select one item to wear on top and one on bottom.

(7) A vowel from the alphabet is paired with an odd number from 0-10. Write out, in a logical way, the possible combinations.