Sample Space Diagrams

Section A *Dice Probability*

1) Two fair dice are thrown and the scores are **ADDED** together.

- Complete the sample space diagram
- How many outcomes are there?
- What is the probability of getting a score of '5'?
- What is the probability of getting a score greater than '9'?
- What is the probability of getting a score less than '7'?

2) Two fair dice are thrown and the scores are **MULTIPLIED** together.

- Complete the sample space diagram
- How many outcomes are there?
- What is the probability of getting a score of '6'?
- What is the probability of getting a score greater than '16'?
- What is the probability of getting a score less than '4'?

3) A six-faced dice and a four-faced dice are thrown. The first score is **SUBTRACTED FROM** the second score.

- Complete the sample space diagram
- How many outcomes are there?
- What is the probability of getting a negative score?
- What is the probability of getting a score ≥ 0?

First Score

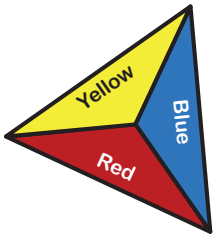
Second Score						
						
						
						
						

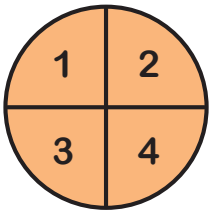
Sample Space Diagrams

Section B

1) Jamie has two fair spinners.

One has three equal sections coloured red, blue and yellow. The other has four equal sections numbered 1, 2, 3 and 4. Jamie spins both spinners.





Complete the sample space diagram.

Colour	**B**	
Number	**1**	

2) A fair dice and a coin are thrown together.

a. Draw a sample space diagram to represent the possible outcomes.

b. What is the probability of getting an even number and a tails?

3) A game is played using the counters inside two bags.
Bag 1 contains a green, purple and an orange counter.
Bag 2 contains 3 counters with the numbers 4, 5 and 6 on them.

a. Draw a sample space diagram to show all the possible outcomes when one counter is taken from each bag.

b. What is probability of someone picking a green counter and the number 4?

c. Find the probability of taking an orange counter and a number greater than 4.