

Probability of Compound Events

Sample Spaces

1 Two pennies are thrown.

(a) Draw a table to show the sample space for the possible outcomes.

What is the probability of obtaining

(b) 2 heads (c) 2 tails (d) 1 head and 1 tail ?

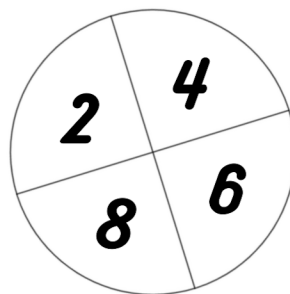
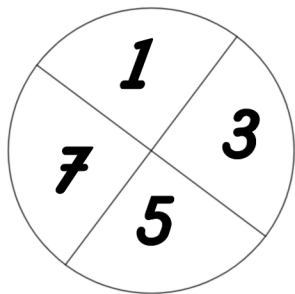
2 Two fair six sided dice are rolled. The sum of the two dice is noted.

(a) Draw a table to show the sample space

(b) What is the probability that the sum of the dice is

(i) 7 (ii) 4 (iii) 11 (iv) even (v) prime (vi) greater than 9 ?

3 Two spinners are numbered as shown



(a) Copy and complete the following table to show all possible outcomes when they are spun, writing the total score for each outcome.

		Spinner 2			
		+	2	4	6
Spinner 1	1				
	3				
	5				
	7				

(b) What is the total number of possible outcomes?

(c) How many outcomes give a score of 9 ?

4 A fair six sided die and a coin are thrown.

- (a) Draw a sample space diagram to show the possible outcomes
- (b) What is the probability of a head and a 3 ?
- (c) What is the probability of a tail and a 5 ?
- (d) What is the probability of an even number and a tail ?

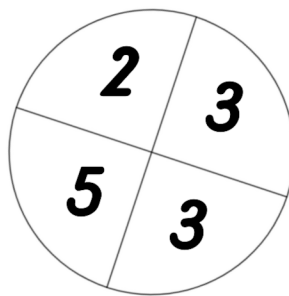
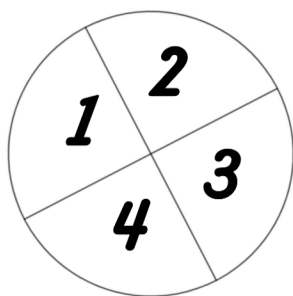
5 A tetrahedral dice (4 sided) is numbered 1, 2, 3, 4. Two are thrown and the product of the scores is noted

- (a) Draw a sample space diagram

Find the probability that

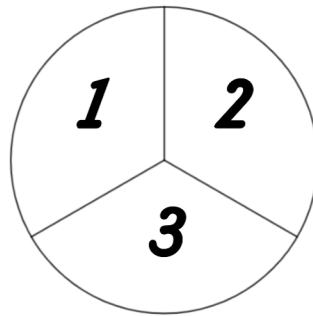
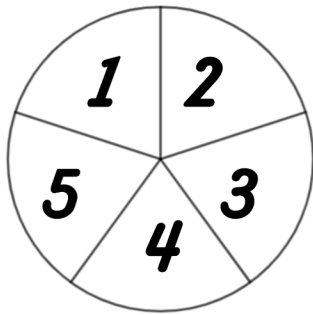
- (b) the score is greater than 9
- (c) the score is less than 12
- (d) the score is exactly 8
- (e) the score is a square number
- (f) the score is odd.

6 The following two spinners are spun



- (a) Draw a table to show all possible outcomes and the total score.
- (b) What score is most likely ?
- (c) What is the probability of scoring 5 ?
- (d) What is the probability of scoring less than 5 ?

7 The following two spinners are spun



- (a) Draw a table to show all possible outcomes and the total score.
- (b) What is the probability of scoring 6 ?
- (c) What is the probability that the score is odd ?
- (d) What is the probability of scoring less than 5 ?