**Memory**

Sample space diagrams are used for finding the probability of combined events.

**Research**

What is meant by the term mutually exclusive? Give an example.

**Literacy**

Theoretical probability

Sample space diagram

**Stretch**

Billy has two spinners. Spinner 1 has the numbers 1, 2, 3 and 4 on. Spinner 2 has the numbers -1, 2, -3 and 4 on. The two spinners are spun and the product of their numbers taken.

1. Draw a sample space diagram for this
2. What is the probability the outcome will be even?
3. What is the probability the outcome will be greater than 0.

**Skills Practice**

1. Fiona has a black top and a grey top. She has a red skirt, a yellow skirt and a green skirt.
2. Draw a sample space to show the different combination of skirt and top she can wear?
3. What is the probability that Fiona will wear a green skirt and a black top?
4. What is the probability she will wear a grey top.
5. A spinner has the numbers 1, 2, 3 and 4 on. A second spinner has the numbers 4, 5, 6 and 7 on. The two spinners are spun and their numbers added together.
6. Draw a sample space diagram for this
7. What is the probability that the total score is greater than 10?
8. What is the probability that the total score is 1?