# Generate sample spaces for single events

**1** Write the sample spaces for the events.

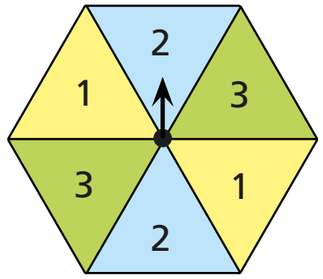
**a)** rolling a standard six-sided dice

S = {_____}

**b)** tossing a fair coin

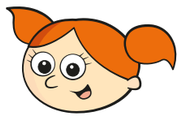

S = {_____}

**2** Dexter and Alex have written the sample space for this spinner.




**Dexter**

{1, 1, 2, 2, 3, 3}



**Alex**

S = {1, 2, 3}

Who is correct? _____

Explain your answer.

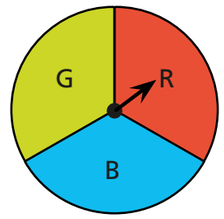
_____

_____

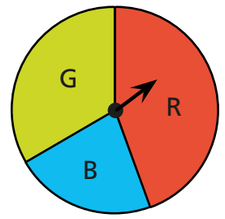
Discuss your answer with a partner.

**3** Dani spins these spinners.

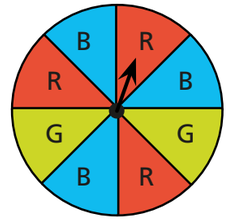
**A**




**B**




**C**




**a)** What is the same and what is different about the spinners?

_____

_____

_____

**b)** Write the sample spaces of the outcomes for each spinner.

**A** S = {_____}

**B** S = {_____}

**C** S = {_____}

**c)** What is the same about the sample spaces for each spinner?

_____

_____

**4** These letters are put into a hat.

| B | E | E | K | E | E | P | E | R |
|---|---|---|---|---|---|---|---|---|

A letter is chosen at random.

Write the sample space for the outcomes.

S = {_____}

**5** **a)** Here are some number cards.

| | | | | |
|---|---|---|---|---|
| | | | | |

A card is chosen at random.

The sample space for the outcomes is S = {2, 4, 6, 8, 10}.

What is the value of each card? Write the numbers on the cards.

**b)** Here are some more number cards.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

A card is chosen at random.

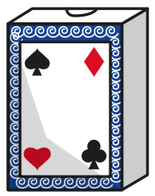
The sample space for the outcomes is S = {2, 4, 6, 8, 10}.

What could the cards be? Write the numbers on the cards.

**6** A card is removed from the pack, and a piece of fruit is removed from the bowl.

Describe the sample spaces to a partner.

**a)**



**b)**

**7** Draw two different spinners that have the sample space S = {1, 2, 3, 4, 5}.

Compare your sample space with a partner's.

**8** The sample space for an event is {green, red}.

**a)** What could this event be?

_____

**b)** Explain why the probability of the outcomes might not be equally likely.

_____

_____

**9** Some cards are labelled with numbers.

A card is chosen at random.

The sample space of an event is S = {3, 5, 7, 9}.

Work out the probabilities.

**a)** The probability of getting an odd number is _____

**b)** The probability of getting an even number is _____

**c)** Explain to a partner why you cannot work out the probability of getting a number greater than 6