

Generate sample spaces for single events

1 Write the sample spaces for the events.

a) rolling a standard six-sided dice



$S = \{ \quad \quad \quad \}$

b) tossing a fair coin



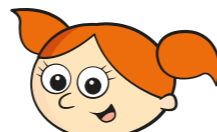
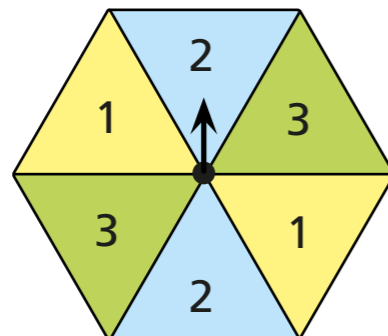
$S = \{ \quad \quad \}$

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



Dexter

$\{1, 1, 2, 2, 3, 3\}$



Alex

$S = \{1, 2, 3\}$

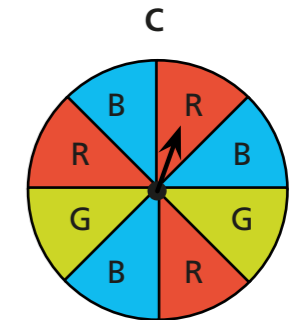
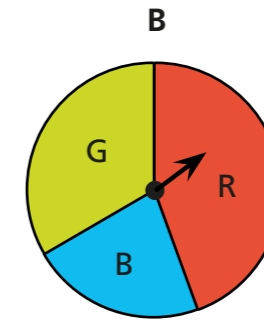
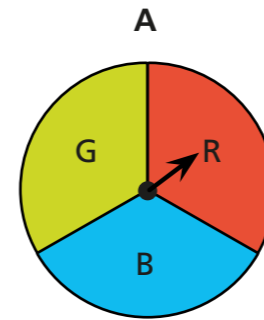
Who is correct? _____

Explain your answer.

Discuss your answer with a partner.



3 Dani spins these spinners.



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

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

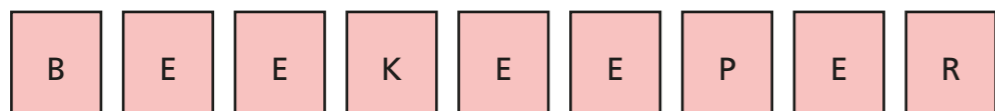
A S = { _____ }

B S = { _____ }

C S = { _____ }

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

- 4 These letters are put into a hat.

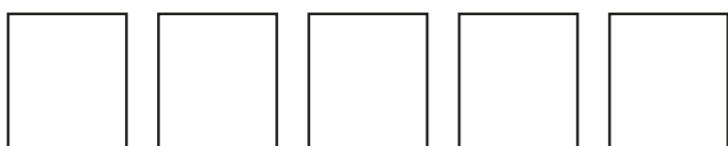


A letter is chosen at random.

Write the sample space for the outcomes.

$S = \{ \rule{1.5cm}{0.4pt} \}$

- 5 a) Here are some number cards.

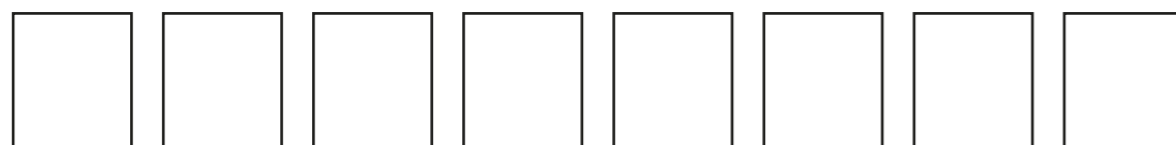


A card is chosen at random.

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.

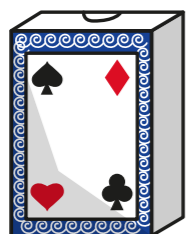
The sample space for the outcomes is $S = \{2, 4, 6, 8, 10\}$.

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