

EXTRA TASK SHEET

CHAPTER 22 - PROBABILITY



1 FAIR OR UNFAIR

- 1 Are these games fair or unfair? Explain.

Game A

Polly and Hamish roll a die.
Polly wins if 1, 2 or 3 are rolled.
Hamish wins if 4, 5 or 6 are rolled.

Game C

Edward and William roll a die.
Edward wins if a 4 is rolled.
William wins if a 4 is not rolled.

Game E

Jason and Adam roll a die. Jason wins if a factor of 6 turns up. Adam wins if any other number is rolled.

Game B

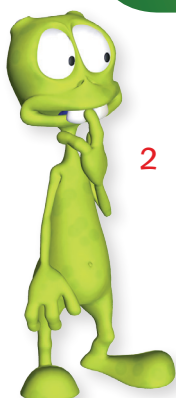
Christine and Maria roll a die.
Christine wins if a 2 is rolled and Maria wins if a 4 is rolled.
If any other number is rolled, they roll again.

Game D

Bianca and Rochelle roll a die.
Bianca wins if a multiple of 3 is rolled. Rochelle wins if any other number is rolled.

Game F

Piers and Roland roll a die.
Piers wins if a 1 or 2 is rolled. Roland wins if a 5 or 6 turns up.
If a 3 or a 4 is rolled the die is rolled again. If two 3's in a row are rolled nobody wins.



- 2
- a If **Game C** was played 60 times, how many times would you expect William to win?
 - b If **Game E** was played 60 times, how many times would you expect Adam to win?
- 3
- a Sean and Nicole are playing a game with this spinner. Sean wins if the pointer stops on green. Nicole wins if the pointer stops on yellow or white. Is this a fair game?
 - b They play a different game. Sean wins if the pointer stops on red or green. Nicole wins if the pointer stops on any other colour. Is this a fair game?
 - c They play the game in **b** 100 times. How many times would you expect Sean to win?

