

UNIT 6 *Probability*

Overhead Slides

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OS 6.1

Assessing Probabilities

For each question below, select the more reasonable statement from each pair:

1. The probability that it snows on Christmas Day in London is 0.9.

The probability that it does *not* snow on Christmas Day in London is 0.9.

2. The probability that the school bus is *late* is less than 0.5.

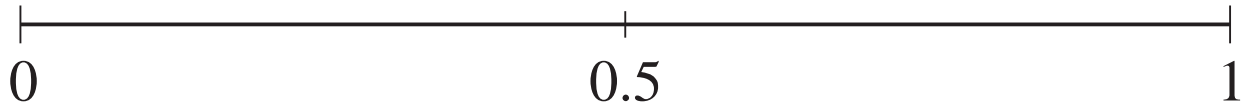
The probability that the school bus is *on time* is greater than 0.5.

3. I can be certain that I will *not win* a prize in the school raffle if I buy one ticket.

I am very *unlikely to win* a prize in the school raffle if I buy one ticket.

OS 6.2

Probability Scale



Mark an estimate of the probability of each event listed below on the probability scale shown.

- A *Your school football team wins a trophy.*
- B *You roll an unbiased dice and obtain a number greater than 1.*
- C *You toss a fair coin and obtain a head.*
- D *Your school is struck by lightning.*
- E *You draw a 'Diamond' from a pack of 52 playing cards.*

OS 6.3

Probability of a Single Event

A jar contains

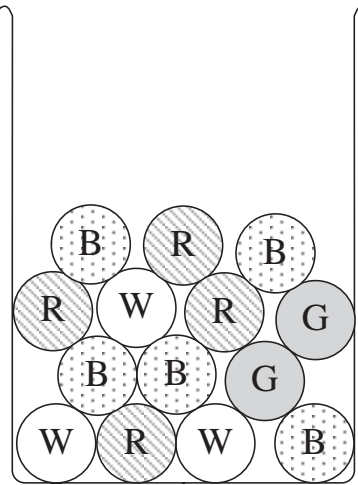
3 *white* balls,

2 *green* balls,

4 *red* balls

and

5 *blue* balls.



What is the probability that a ball taken at random is:

(a) *red*,

(b) *not blue*,

(c) *green or white*,

(d) *yellow* ?

(a) $p(\text{red}) = \text{—————}$

(b) $p(\text{not blue}) = \text{—————}$

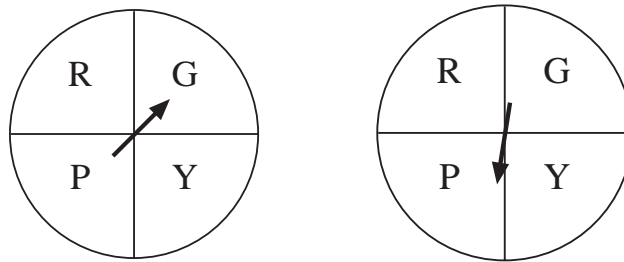
(c) $p(\text{green or white}) = \text{—————}$

(d) $p(\text{yellow}) = \text{—————}$

OS 6.4

Probability of Two Events 1

The four sections of two identical spinners are coloured Red (R), Green (G), Yellow (Y) and Pink (P).



The spinners are spun at the same time. List the 16 possible outcomes.

- | | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|
| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. | 13. | 14. | 15. | 16. |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|

Complete the following statements:

$$p(2 \text{ red sections}) =$$

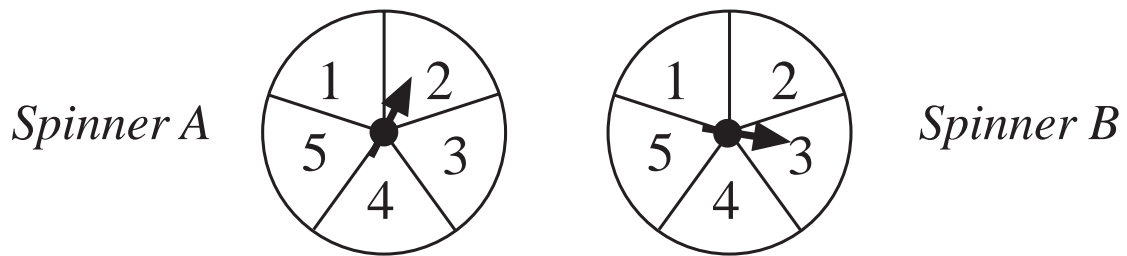
$$p(2 \text{ sections of different colours}) =$$

$$p(\text{no yellow sections}) =$$

$$p(\text{both sections the same colour}) =$$

OS 6.5

Two- Numbered Spinners



These two spinners are spun at the same time. Complete the table to show the possible outcomes for the total of the scores when added together.

		<i>Spinner B</i>				
		1	2	3	4	5
<i>Spinner A</i>	1					
	2					
	3					
	4					
	5					

Complete the following statements:

$$p(\text{score greater than } 3) = \text{———}$$

$$p(\text{even score}) = \text{———}$$

$$p(\text{score less than } 5) = \text{———}$$

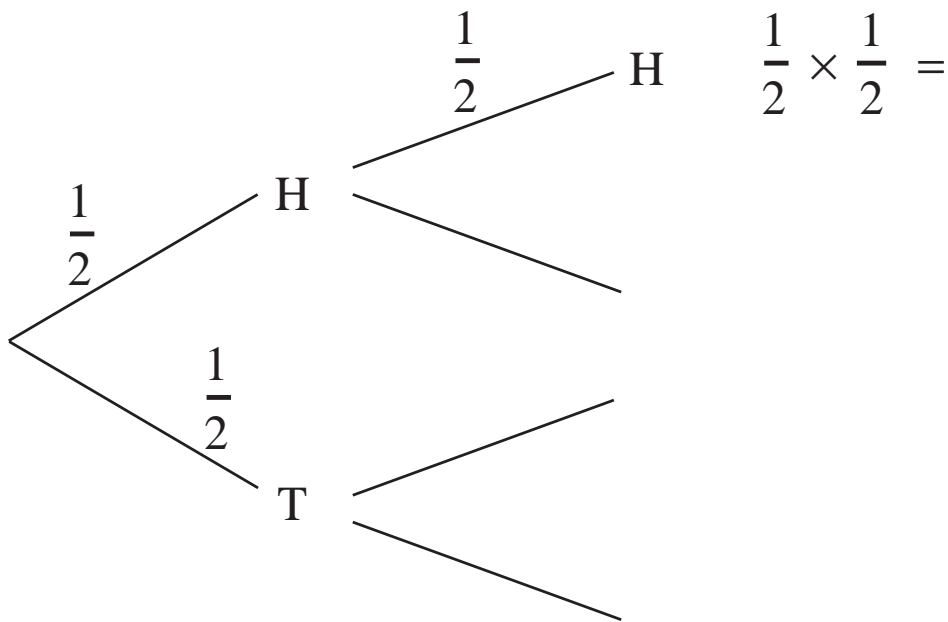
$$p(\text{score of } 8) = \text{———}$$

OS 6.6

Tossing Two Coins

Two fair coins are tossed at the same time.

Complete the tree diagram to show the possible outcomes.



Complete the following statements:

$$p(2 \text{ tails}) = \underline{\hspace{2cm}}$$

$$p(\text{no tails}) = \underline{\hspace{2cm}}$$

$$p(\text{a head and a tail}) = \underline{\hspace{2cm}}$$

OS 6.7

Experimental Probabilities

