

Probability Table and Estimation

1. A spinner can land on orange, purple, pink and brown.

The table shows the probabilities that the spinner will land on orange, purple and pink.

Colour	Orange	Purple	Pink	Brown
Probability	0.4	0.2	0.1	

(a) Complete the table. (2)

(b) The spinner is spun 50 times. Estimate how many times it will land on purple. (2)

2. A dice is biased and can land on 1, 2, 3 or 4.

The table shows the probabilities for 1, 2 and 3.

Number	1	2	3	4
Probability	0.22	0.33	0.15	

(a) Complete the table. (2)

(b) The dice is rolled 80 times. Estimate how many times it will land on 2. (2)

3. A bag contains red, blue, green and white marbles.

The table shows the probabilities for red, blue and green.

Colour	Red	Blue	Green	White
Probability	0.18	0.27	0.25	

(a) Complete the table. (2)

(b) The bag is picked from 40 times. Estimate how many times a green marble is picked. (2)

4. A wheel of fortune can stop at gold, silver, bronze or platinum.

The table shows the probabilities for gold, silver and bronze.

Prize	Gold	Silver	Bronze	Platinum
Probability	0.12	0.34	0.18	

(a) Complete the table. (2)

(b) The wheel is spun 100 times. Estimate how many times it will stop at silver. (2)

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5. A card game has four possible outcomes: win, lose, draw, or retry.

The table shows the probabilities for win, lose and draw.

Outcome	Win	Lose	Draw	Retry
Probability	0.28	0.41	0.09	

(a) Complete the table. (2)

(b) The game is played 70 times. Estimate how many times the outcome will be lose. (2)

6. A spinner can land on black, white, grey or silver.

The table shows the probabilities for black, white and grey.

Colour	Black	White	Grey	Silver
Probability	0.16	0.35	0.29	

(a) Complete the table. (2)

(b) The spinner is spun 90 times. Estimate how many times it will land on grey. (2)

7. A box contains purple, yellow, orange, and blue tokens.

The table shows the probabilities for purple, yellow and orange.

Colour	Purple	Yellow	Orange	Blue
Probability	0.19	0.26	0.31	

(a) Complete the table. (2)

(b) The box is chosen from 60 times. Estimate how many times a yellow token is chosen. (2)

8. A raffle has prizes: teddy, book, pen, or mug.

The table shows the probabilities for teddy, book and pen.

Prize	Teddy	Book	Pen	Mug
Probability	0.22	0.18	0.27	

(a) Complete the table. (2)

(b) There are 120 raffle draws. Estimate how many times a pen is won. (2)

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9. A computer randomly selects square, triangle, circle or star.

The table shows the probabilities for square, triangle and circle.

Shape	Square	Triangle	Circle	Star
Probability	0.23	0.17	0.38	

(a) Complete the table. (2)

(b) The computer makes 200 selections. Estimate how many times it will select a circle. (2)

10. A vending machine gives out cola, lemonade, water or juice.

The table shows the probabilities for cola, lemonade and water.

Drink	Cola	Lemonade	Water	Juice
Probability	0.31	0.29	0.14	

(a) Complete the table. (2)

(b) The machine is used 150 times. Estimate how many times juice is chosen. (2)

1.

(a) Brown: $1 - (0.4 + 0.2 + 0.1) = 0.3$

(b) $50 \times 0.2 = 10$

2.

(a) 4: $1 - (0.22 + 0.33 + 0.15) = 0.3$

(b) $80 \times 0.33 = 26.4$ (Accept 26 or 26.4)

3.

(a) White: $1 - (0.18 + 0.27 + 0.25) = 0.3$

(b) $40 \times 0.25 = 10$

4.

(a) Platinum: $1 - (0.12 + 0.34 + 0.18) = 0.36$

(b) $100 \times 0.34 = 34$

5.

(a) Retry: $1 - (0.28 + 0.41 + 0.09) = 0.22$

(b) $70 \times 0.41 = 28.7$ (Accept 28 or 28.7)

6.

(a) Silver: $1 - (0.16 + 0.35 + 0.29) = 0.2$

(b) $90 \times 0.29 = 26.1$ (Accept 26 or 26.1)

7.

(a) Blue: $1 - (0.19 + 0.26 + 0.31) = 0.24$

(b) $60 \times 0.26 = 15.6$ (Accept 15 or 15.6)

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8.

(a) Mug: $1 - (0.22 + 0.18 + 0.27) = 0.33$

(b) $120 \times 0.27 = 32.4$ (Accept 32 or 32.4)

9.

(a) Star: $1 - (0.23 + 0.17 + 0.38) = 0.22$

(b) $200 \times 0.38 = 76$

10.

(a) Juice: $1 - (0.31 + 0.29 + 0.14) = 0.26$

(b) $150 \times 0.26 = 39$