1. Question | 0607 Feb-March 2025 P4 V2 Q16

16 Rupesh plays a game 3 times.
He can either win each game or lose each game.
The probability that Rupesh wins each game is 0.2 .

Find the probability that Rupesh loses the 3 games.

..... [2]

2. Question | 0607 May-June 2025 P4 V1 Q14

14 Ahmed records the mass of each of 50 pumpkins.
The results are shown in the table.

Mass (m kg)	$0 < m \leqslant 2$	$2 < m \leqslant 5$	$5 < m \leqslant 10$	$10 < m \leqslant 15$	$15 < m \leqslant 25$
Frequency	13	17	10	7	3

(a) Calculate an estimate of the mean.

..... kg [2]

(b) Ahmed picks two of the 50 pumpkins at random.

Find the probability that one of these pumpkins has a mass greater than 10 kg and the other pumpkin has a mass of not more than 2 kg.

..... [3]

3. Question | 0607 Oct-Nov 2025 P4 V2 Q9

9 A bag contains 5 black balls and 7 white balls.
One ball is chosen at random and not replaced.
A second ball is then chosen at random.

Find the probability that both balls are black.

..... [2]

4. Question | 0607 Oct-Nov 2025 P4 V2 Q16

16 A spinner has 24 equal sections.
Each section is coloured red or blue.
There are x red sections and all other sections are blue.

The spinner is equally likely to land on any of its sections.
The spinner is spun twice and the colour that the spinner lands on each time is recorded.

The probability that the spinner lands on blue exactly once is $\frac{4}{9}$.

Find the possible values of x.

$x =$ ..... or $x =$ ..... [5]

Questions 17 is printed on the next page.

5. Question | 0607 Feb-March 2026 P4 V2 Q15

15 Alisha has these 10 letter cards.



(a) Alisha selects 2 of these cards at random without replacement.

Find the probability that at least 1 card has an **S** on it.

..... [3]

(b) The 2 cards are replaced.
Alisha now selects 3 cards from the set of 10, at random without replacement.

Find the probability that the cards can be arranged to spell the word **SON**.

..... [3]