

Q1. (2018)

- 15 A biased dice is thrown.
Here are the probabilities of each score.

Score	1	2	3	4	5	6
Probability	0.25	0.05	0.15	0.05	0.3	0.2

The dice is thrown 200 times.

Work out the expected number of times the score will be odd.

[3 marks]

Q2. (2021)

- 19 Items made at a factory have to pass two checks.
90% pass the first check.
The items that fail are scrapped.
99% of the items that pass the first check pass the second check.
The items that fail are scrapped.

- 19 (b) An item is chosen at random before the checks.
Work out the probability that the item is scrapped.

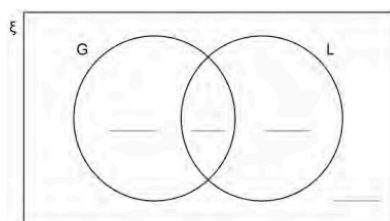
[3 marks]

Q3. (2024)

- 5 A school year has 78 students.
28 wear glasses.
 $\frac{1}{4}$ of the students who wear glasses are left-handed.
30% of the students who do **not** wear glasses are left-handed.

(A)

- 5 (a) ξ = students in the school year
G = wears glasses
L = left-handed



Complete the Venn diagram.

[3 marks]

(B)

- 5 (b) A left-handed student is chosen at random.
Work out the probability that the student wears glasses.

[1 mark]