

4.1 Basic Probability

Question Paper

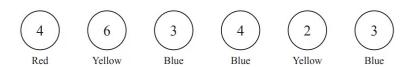
| Course | CIEIGCSEMaths |
|------------|-----------------------------|
| Section | 4. Probability & Statistics |
| Topic | 4.1 Basic Probability |
| Difficulty | Easy |

Time allowed: 20

Score: /9

Percentage: /100

Question 1



The diagram shows six discs. Each disc has a colour and a number.

One disc is picked at random.

Write down the probability that

i) the disc has the number 4,

ii) the disc is red and has the number 3,

iii) the disc is blue and has the number 4.

Question 2

The test scores of 14 students are shown below.

21 21 23 26 25 21 22 20 21 23 23 27 24 21 A student is chosen at random.

Find the probability that this student has a test score of more than 24.

[1 mark]

[1]

[1]

[1]

[1]

[3 marks]



$Head to \underline{save my exams. co.uk} for more a we some resources$

Question 3

20 students each record the mass, p grams, of their pencil case.

The table below shows the results.

| Mass (p grams) | 0 < p ≤ 50 | 50 < p ≤ 100 | 100 < p ≤ 125 | 125 < p ≤ 150 | 150 < p ≤ 200 |
|-------------------|------------|--------------|---------------|---------------|---------------|
| Frequency | 2 | 5 | 4 | 6 | 3 |

A student is chosen at random.

Find the probability that this student has a pencil case with a mass greater than 150 g.

[1]

[1 mark]

Question 4

The time taken for each of 120 students to complete a cooking challenge is shown in the table.

| Time (t minutes) | 20 < t ≤ 25 | 25 < t ≤ 30 | 30 < t ≤ 35 | $35 < t \le 40$ | 40 < <i>t</i> ≤ 45 |
|------------------|-------------|-------------|-------------|-----------------|--------------------|
| Frequency | 44 | 32 | 28 | 12 | 4 |

A student is chosen at random.

Find the probability that this student takes more than 40 minutes.

[1]

[1 mark]



 $Head to \underline{savemyexams.co.uk} for more a we some resources\\$

Question 5

The heights, metres, of the 120 boys in an athletics club are recorded.

The table shows information about the heights of the boys.

| Height | 1.3 < h ≤ 1.4 | 1.4 < h ≤ 1.5 | 1.5 < h ≤ 1.6 | 1.6 < h ≤ 1.7 | 1.7 < h ≤ 1.8 | 1.8 < <i>h</i> ≤ 1.9 |
|------------|----------------|----------------|----------------|----------------|----------------|----------------------|
| (h metres) | 1.5 < 11 ≤ 1.4 | 1.4 < 11 ≤ 1.3 | 1.5 < 11 ≤ 1.0 | 1.0 < 11 ≤ 1.7 | 1./ < 11 ≤ 1.0 | 1.6 \ 11 \ ≤ 1.9 |
| Frequency | 7 | 18 | 30 | 24 | 27 | 14 |

One boy is chosen at random from the club.

Find the probability that this boy has a height greater than 1.8 m.

[1]

[1 mark]

Question 6

The frequency table shows information about the time, m minutes, that each of 160 people spend in a library.

| Time (<i>m</i> minutes) | 0 < m ≤ 10 | 10 < m ≤ 40 | 40 < m ≤ 60 | 60 < m ≤ 90 | 90 < m ≤ 100 | $100 < m \le 120$ |
|--------------------------|------------|-------------|-------------|-------------|--------------|-------------------|
| Frequency | 3 | 39 | 43 | 55 | 11 | 9 |

Find the probability that one of these people, chosen at random, spends more than 100 minutes in the library.

[1]

[1 mark]

Question 7

Sushila, has a bag which contains 10 red balls and 8 blue balls. Sushila takes one ball at random from her bag.

Find the probability that she takes a red ball.

[1]

[1 mark]