Probability – 2023 IGCSE Math 0444

1. June/2023/Paper_0444/21/No.5

Eric has four colors of paint.
The table shows the probability that he uses each color.

Colors	Red	Blue	Green	Yellow
Probability	0.3	0.4	0.1	x

Find the value of x.

$x =$ ..... [2]

2. June/2023/Paper_0444/21/No.15

A bag contains 5 green buttons, 2 blue buttons and 6 white buttons.
Maya takes two buttons at random from the bag, without replacement.

Work out the probability that one button is green and the other button is not green.

..... [3]

3. June/2023/Paper_0444/41/No.1

30 students take a test.
The table shows the results.

Score	4	5	6	7	8	9	10
Frequency	2	4	3	5	5	7	4

(a) Find

(i) the mode

..... [1]

(ii) the median

..... [1]

(iii) the mean.

..... [3]

(b) Find the percentage of students whose scores are at least 5.

..... % [1]

(c) 30% of the students score less than x.

Find the value of x.

$x =$ ..... [2]

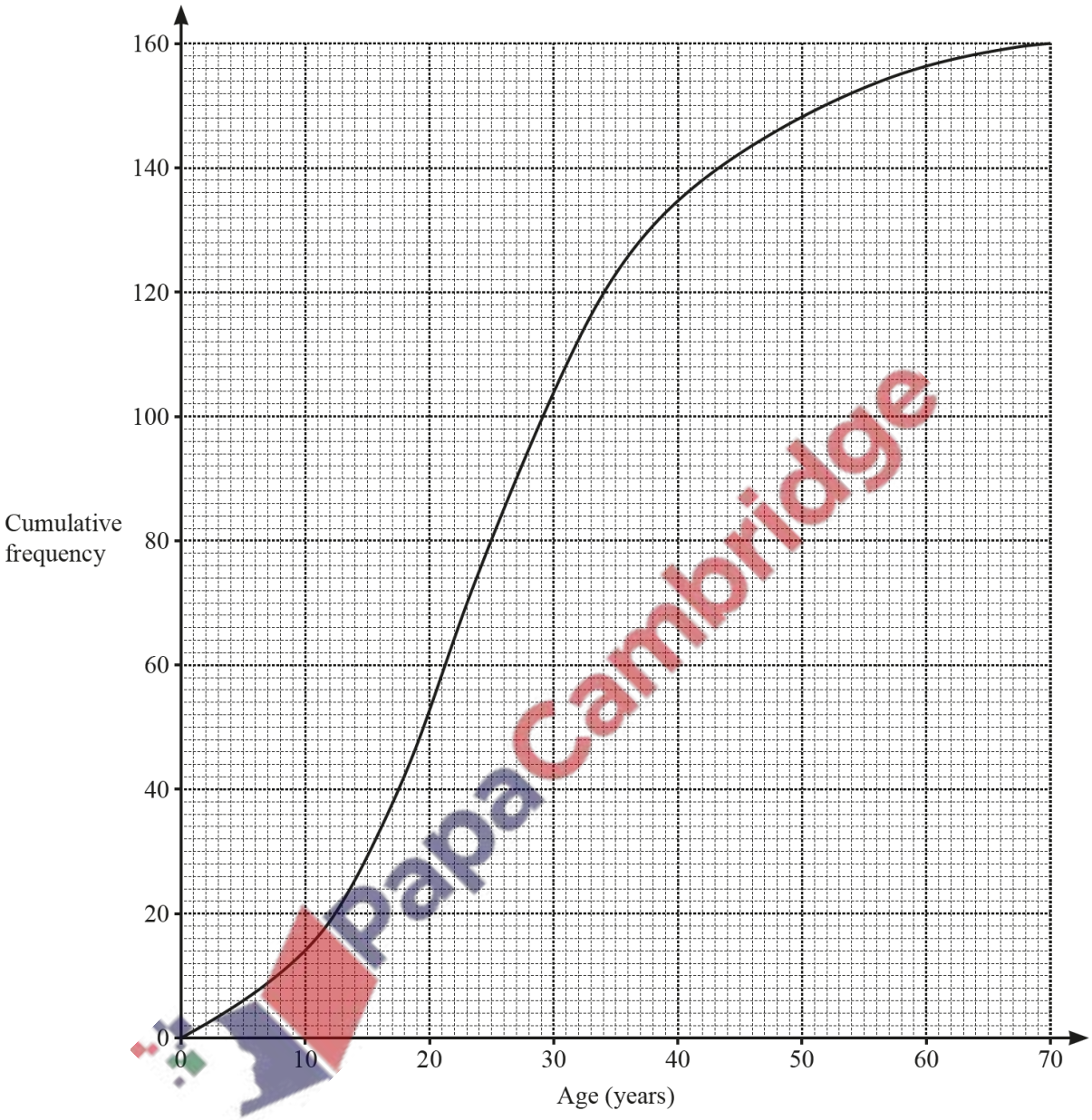
(d) Two students are picked at random.

Find the probability that one student has a score of less than 6 and one student has a score of more than 6.

..... [3]

4. June/2023/Paper_0444/41/No.6

(a) There are 160 people in a village.
The cumulative frequency diagram shows information about their ages.



Find an estimate for

(i) the median age

..... [1]

(ii) the lower quartile

..... [1]

(iii) the number of people who are 50 or more years of age

..... [2]

(iv) the 65th percentile.

..... [2]

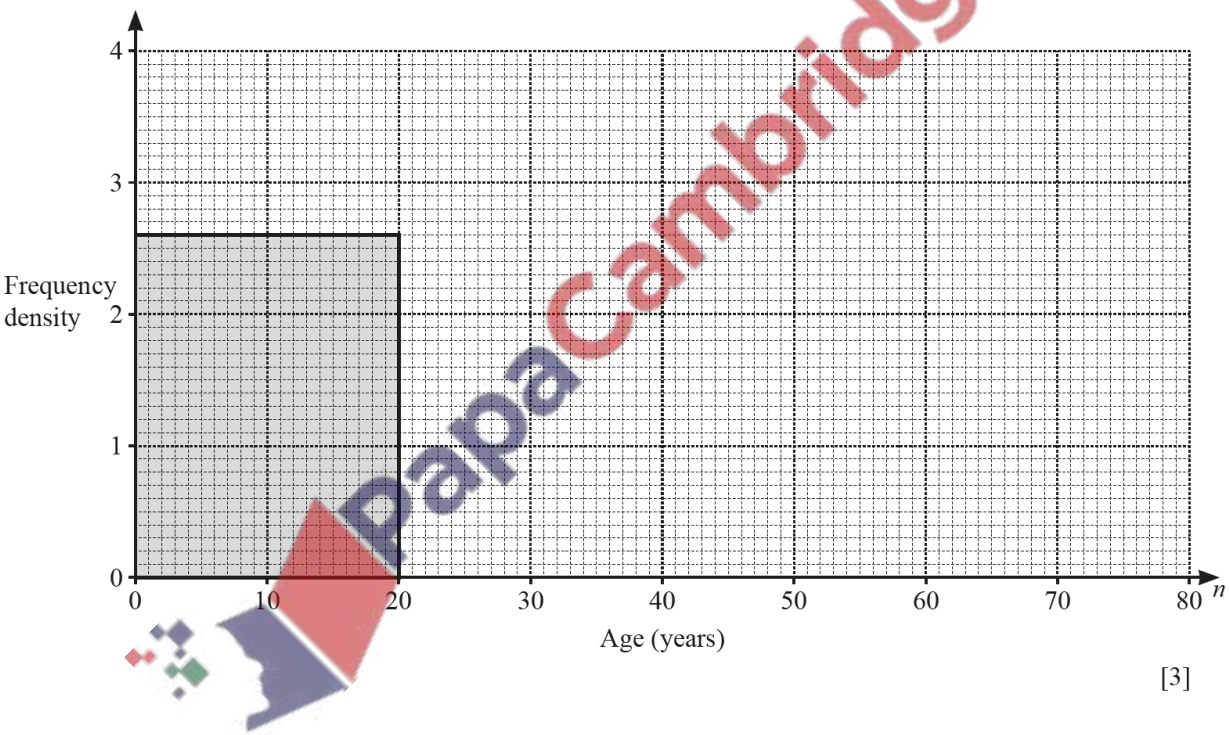
(b) The frequency table shows information about the age of each person in another village.

Age (n years)	$0 < n \leqslant 20$	$20 < n \leqslant 30$	$30 < n \leqslant 50$	$50 < n \leqslant 80$
Frequency	52	37	24	60

(i) Calculate an estimate of the mean age.

..... [4]

(ii) On the grid, complete the histogram to show this information.
The first block has been drawn for you.



[3]