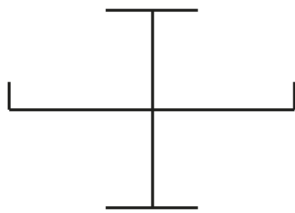


1. June/2022/Paper\_11/No.2

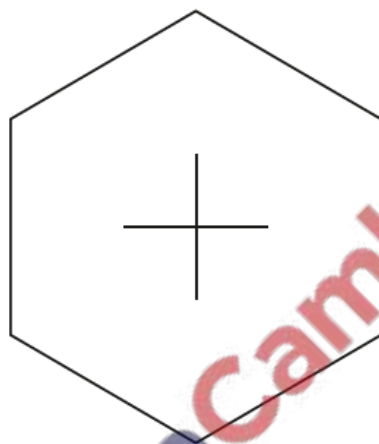
(a)



Write down the number of lines of symmetry of this diagram.

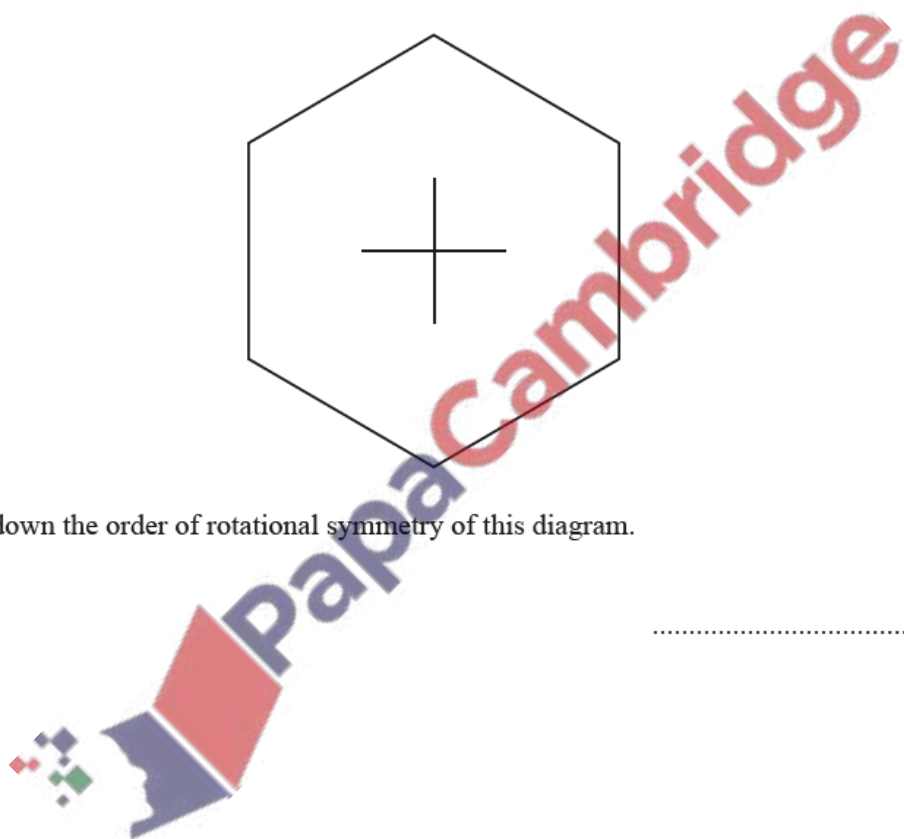
..... [1]

(b)



Write down the order of rotational symmetry of this diagram.

..... [1]



2. June/2022/Paper\_11/No.7

20 students were asked how many pets they owned.

The responses are shown in the table.

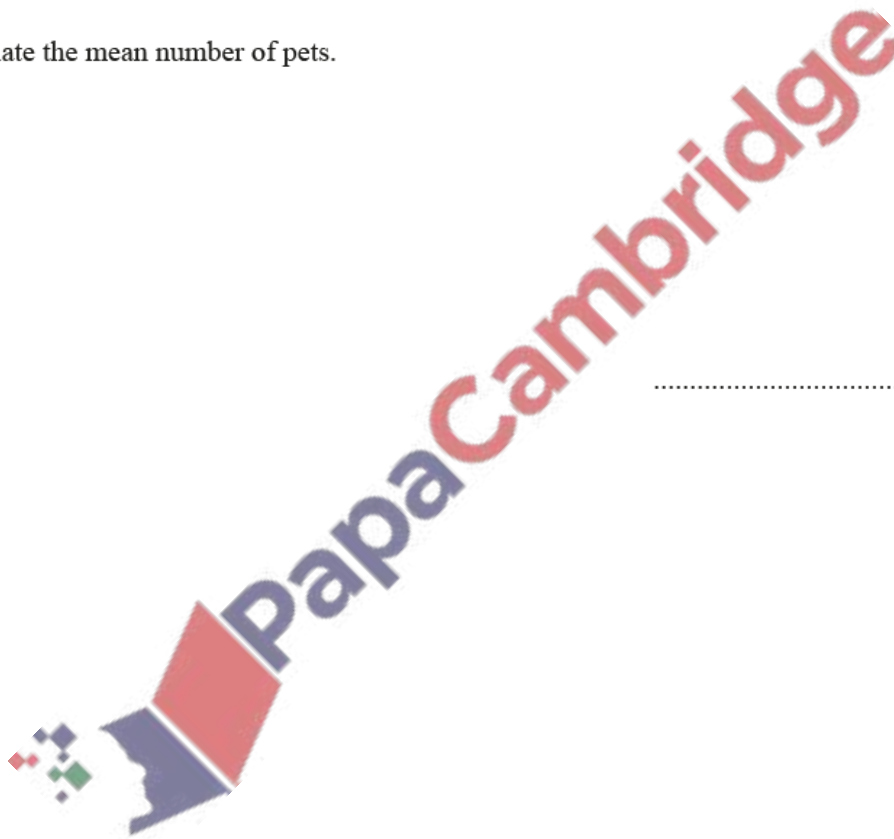
Number of pets	0	1	2	3	4	5
Frequency	3	8	3	4	0	2

(a) Find the median number of pets.

..... [1]

(b) Calculate the mean number of pets.

..... [2]



3. June/2022/Paper\_22/No.5

(a) A group of students each complete a puzzle.

The table shows the time,  $t$  seconds, each student took to complete the puzzle.

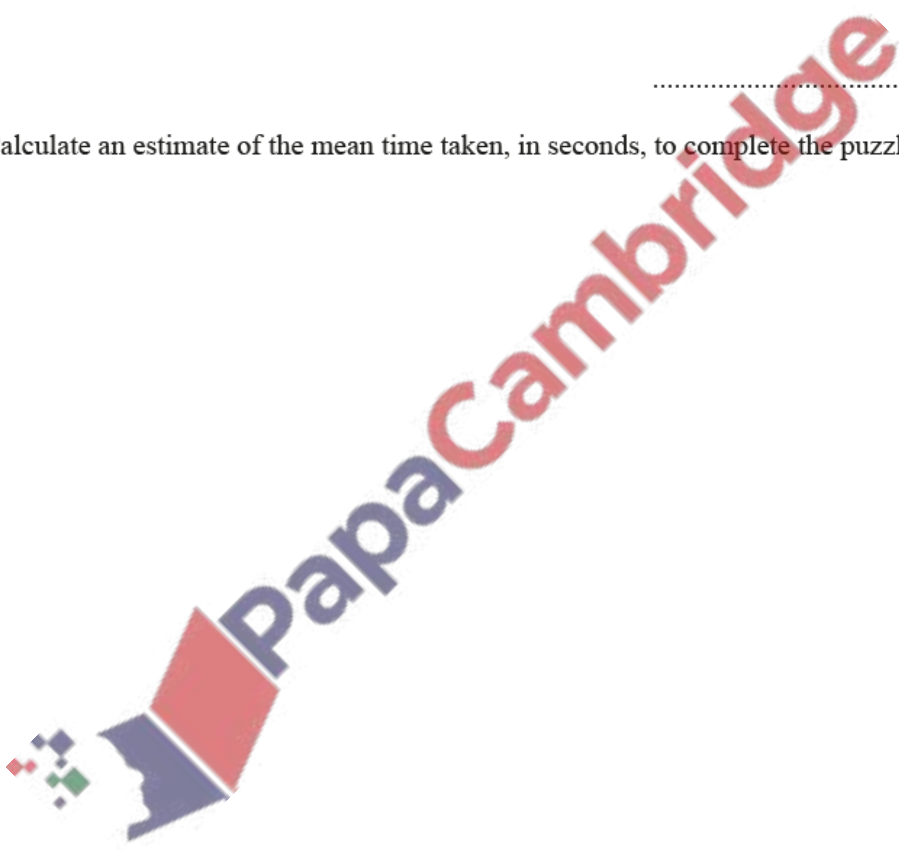
Time ( $t$ seconds)	$80 < t \leq 120$	$120 < t \leq 140$	$140 < t \leq 150$	$150 < t \leq 240$
Frequency	13	26	27	24

(i) Find the number of students who took 2 minutes 20 seconds or less to complete the puzzle.

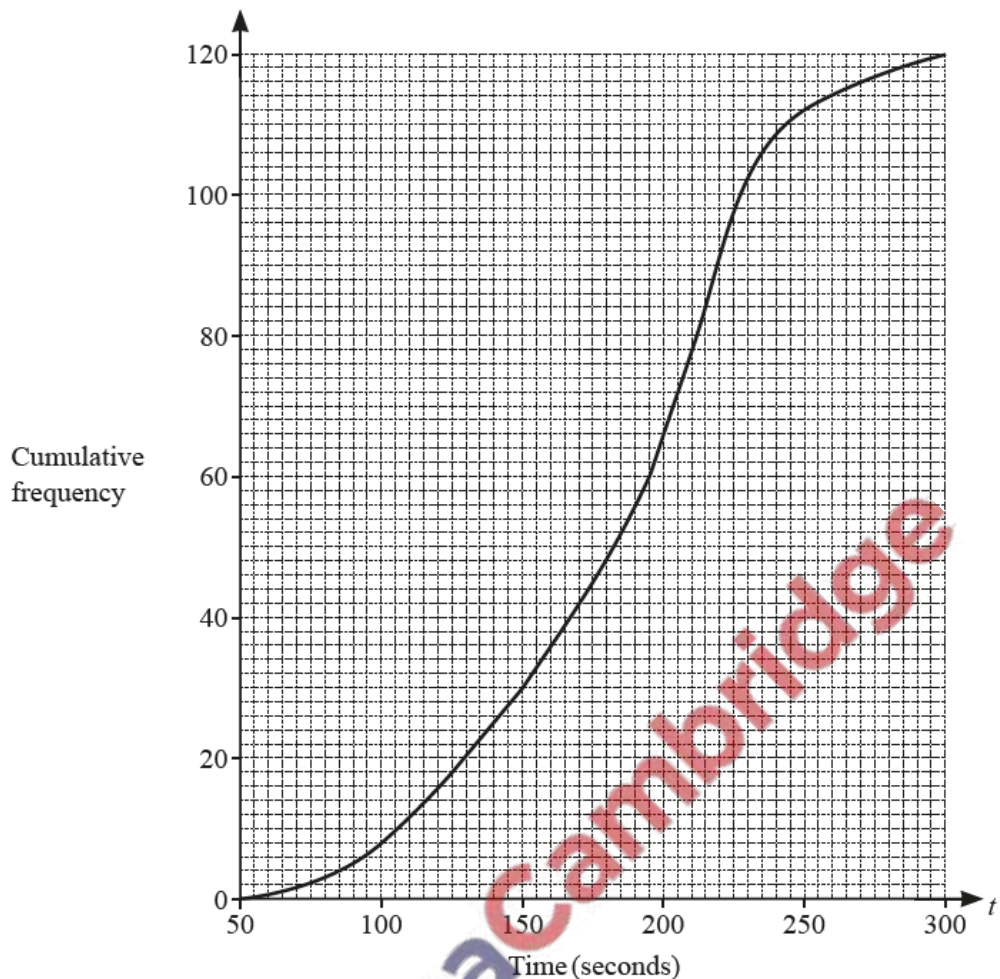
..... [1]

(ii) Calculate an estimate of the mean time taken, in seconds, to complete the puzzle.

..... s [3]



- (b) A group of adults also completed this puzzle.  
A cumulative frequency diagram for their times is shown.



- (i) Use the cumulative frequency diagram to complete the frequency table.

Time ( $t$ seconds)	$50 < t \leq 100$	$100 < t \leq 150$	$150 < t \leq 200$	$200 < t \leq 250$	$250 < t \leq 300$
Frequency	8				

[2]

- (ii) Use the cumulative frequency diagram to find an estimate of the median.

..... s [1]

- (iii) 55% of the adults took between 125 seconds and  $k$  seconds to complete the puzzle.

Use the cumulative frequency diagram to find the value of  $k$ .

$k =$  ..... [3]