

Name: \_\_\_\_\_

## Exam Style Questions

### Cumulative Frequency Box Plots



Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

### Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

### Revision for this topic

[www.corbettmaths.com/contents](http://www.corbettmaths.com/contents)

Video 149

Video 150

Video 153

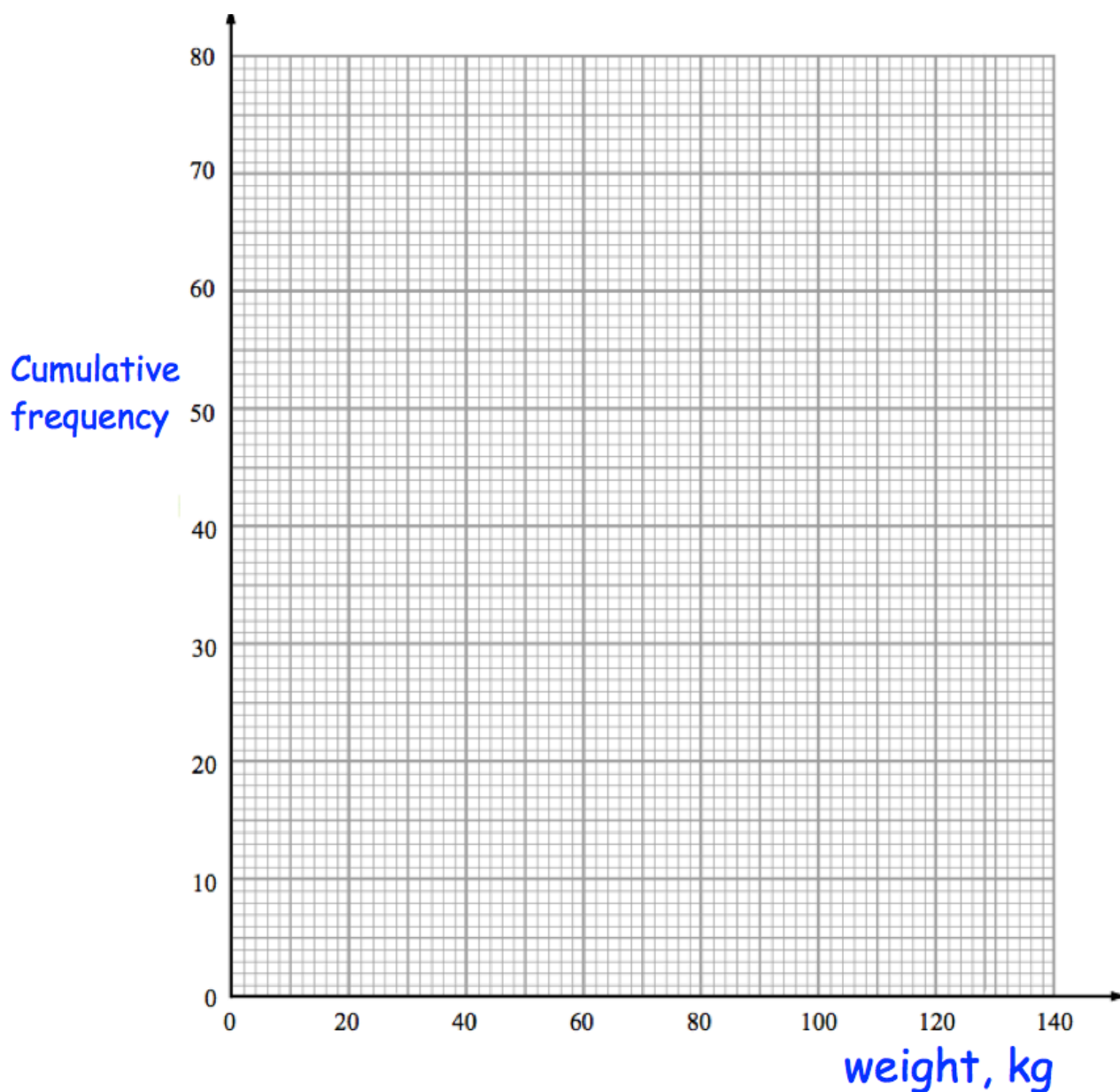
Video 154



- The weight of 80 deer was recorded by a zoo keeper.  
The table below shows this information.

Weight, $w$ kg	Cumulative frequency
$0 < w \leq 20$	2
$0 < w \leq 40$	6
$0 < w \leq 60$	15
$0 < w \leq 80$	36
$0 < w \leq 100$	58
$0 < w \leq 120$	73
$0 < w \leq 140$	80

Draw a cumulative frequency graph for this information.



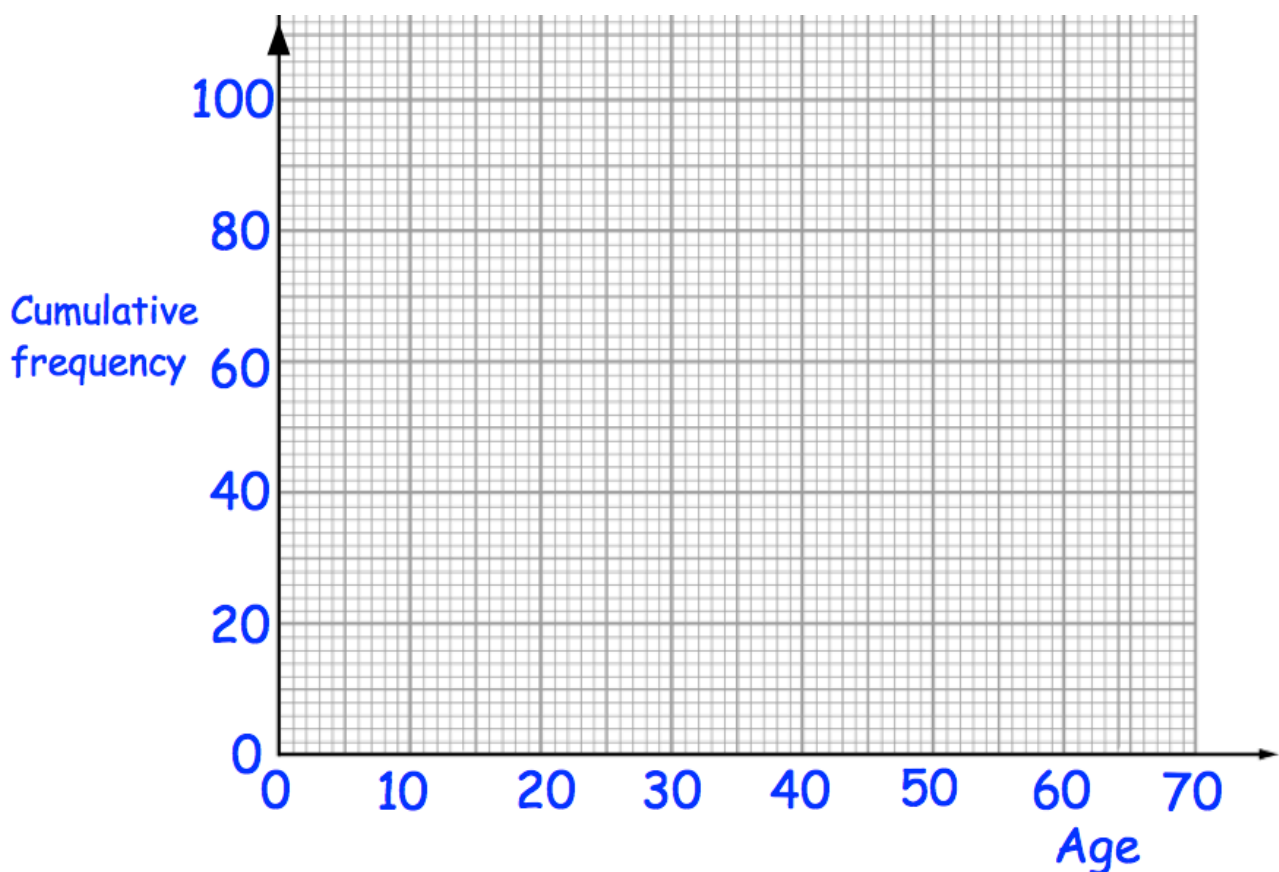
(2)

2. The ages of 100 teachers were recorded.  
The table below shows this information.

Age, $x$ years	Frequency	Cumulative frequency
$20 < x \leq 30$	12	
$30 < x \leq 40$	30	
$40 < x \leq 50$	28	
$50 < x \leq 60$	22	
$60 < x \leq 70$	8	

- (a) Complete the cumulative frequency column in the table.

(1)



- (b) Draw a cumulative frequency graph for this information.

(2)

3. The table shows information about the number of hours that 260 students spent revising for an exam.

Number of hours (h)	Frequency
$0 < h \leq 2$	20
$2 < h \leq 4$	32
$4 < h \leq 6$	48
$6 < h \leq 8$	120
$8 < h \leq 10$	24
$10 < h \leq 12$	16

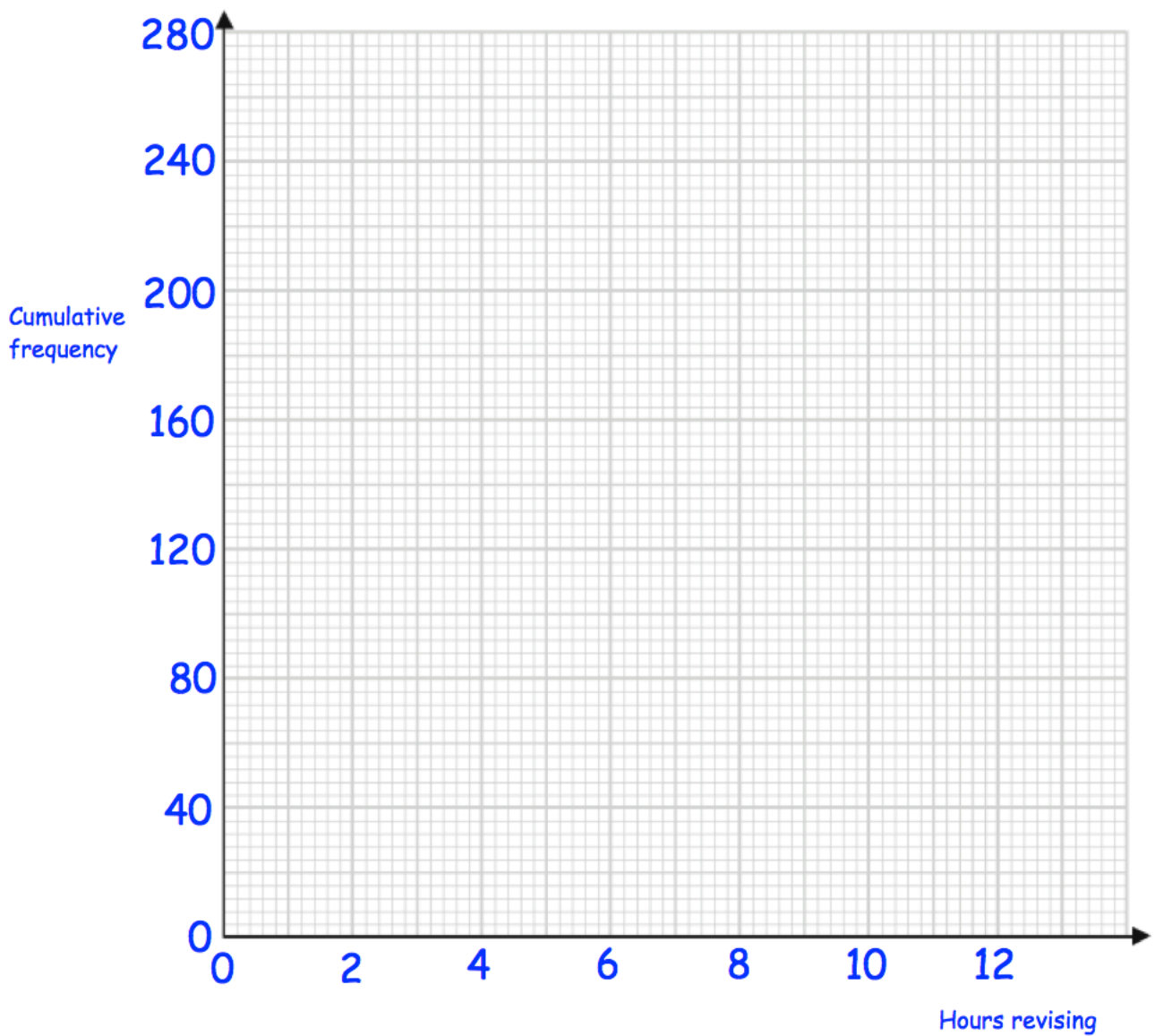
- (a) Complete the cumulative frequency table.

Number of hours (h)	Cumulative frequency
$0 < h \leq 2$	
$0 < h \leq 4$	
$0 < h \leq 6$	
$0 < h \leq 8$	
$0 < h \leq 10$	
$0 < h \leq 12$	

(1)

- (b) On the grid on the following page, draw a cumulative frequency graph for your table.

(2)



(c) Use your graph to find an estimate for the median number of hours spent revising.

.....hours  
(1)

(d) Use your graph to find an estimate for the number of students who spent **less** than 3 hours revising.

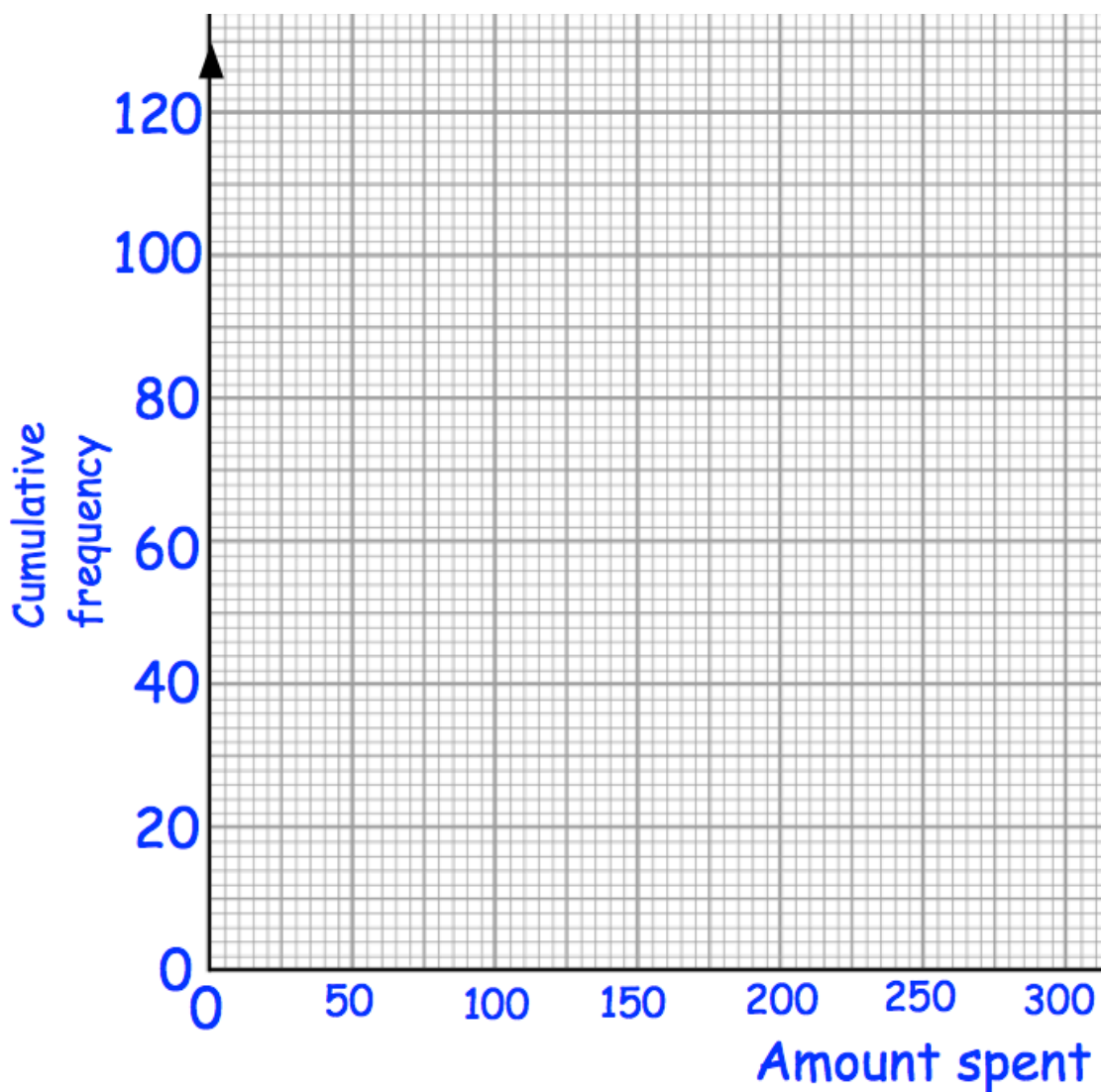
.....  
(2)

5. John did a survey about the amounts of money spent by 120 women while Christmas shopping.

The cumulative frequency table shows this information.

Amount spent, £x	Cumulative frequency
$0 < x \leq 50$	6
$0 < x \leq 100$	30
$0 < x \leq 150$	80
$0 < x \leq 200$	100
$0 < x \leq 250$	112
$0 < x \leq 300$	120

- (a) On the grid, draw a cumulative frequency diagram.



(2)

(b) Use the cumulative frequency diagram to estimate the median.

£.....

(2)

John then surveyed men about the amount of money they spent while Christmas shopping. The median was £160.

(c) Compare the amounts of money spent by the women with the amounts of money spent by the men.

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(1)