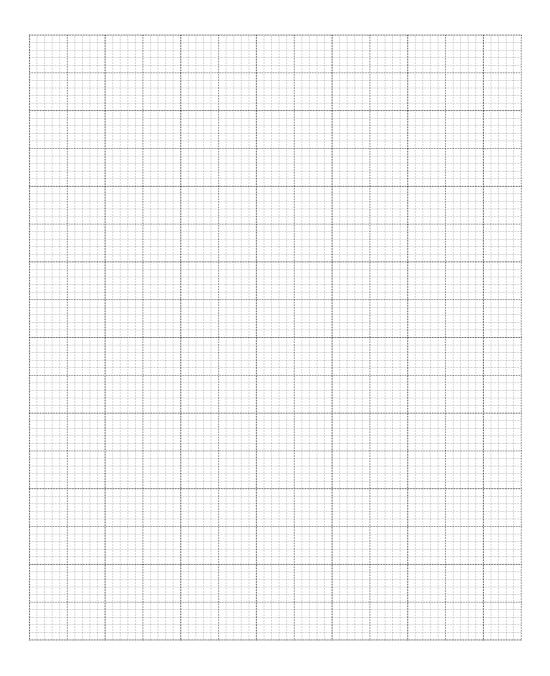
7 Helen measures the lengths of 150 fish of a certain species in a large pond. These lengths, correct to the nearest centimetre, are summarised in the following table.

Length (cm)	0-9	10 – 14	15 – 19	20 – 30
Frequency	15	48	66	21

(a) Draw a cumulative frequency graph to illustrate the data.

[4]



(b)	40% of these fish have a length of d cm or more. Use your graph to estimate the value of d .				
The	e mean length of these 150 fish is 15.295 cm.				
(c)	Calculate an estimate for the variance of the lengths of the fish.	[3]			
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