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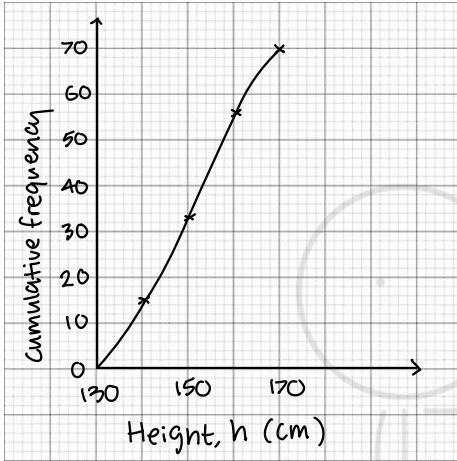
### 3.3 Cumulative Frequency

1.

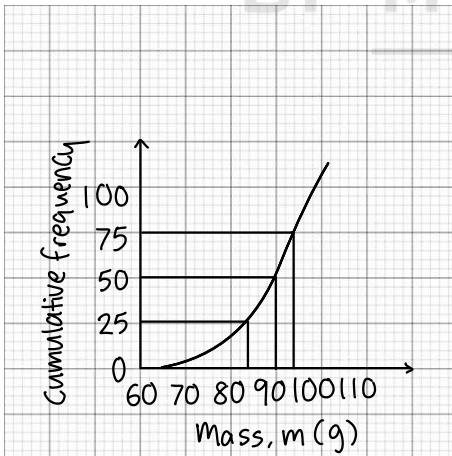
a)

Height (cm)	Cumulative Frequency
$130 \leq h < 140$	15
$140 \leq h < 150$	33
$150 \leq h < 160$	56
$160 \leq h < 170$	70

b)



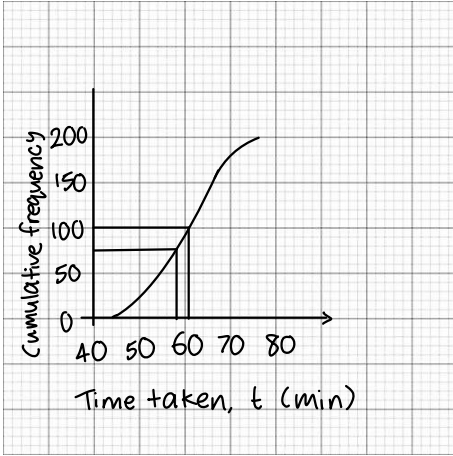
2.



a) median = 90g

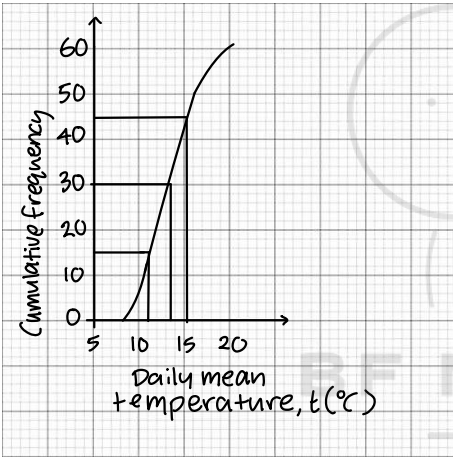
b)  $IQR \approx 94 - 84$   
 $\approx 10g$

3.



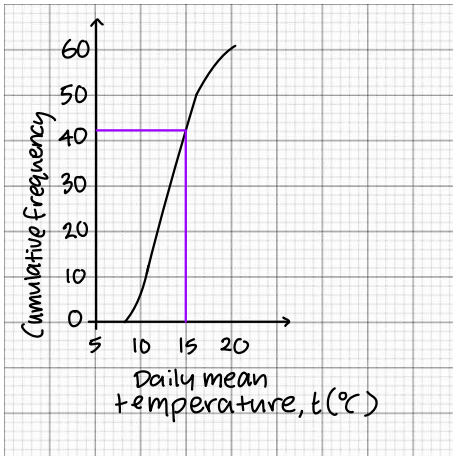
- a) Total runners = 200
- b) Median = 60.5 minutes
- c) Runners who qualified for the regional final  $\approx 75$

4.



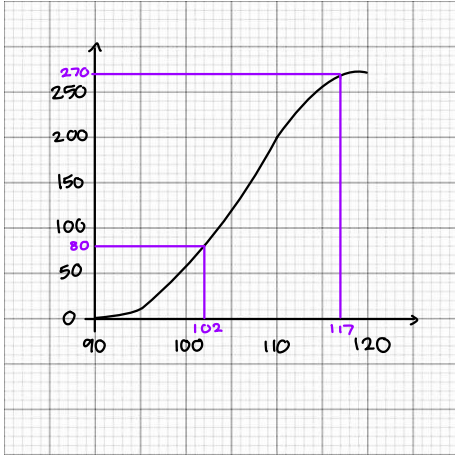
- a) Months of May and June  
 May : 31 days  
 June : 30 days  
 So  $31 + 30 = 61$  days  
 represented in cumulative frequency diagram

- b) Median =  $13.5^{\circ}\text{C}$   
 IQR  $\approx 15.1 - 11$   
 $\approx 4.1^{\circ}\text{C}$



- c) Days greater than  $15^{\circ}\text{C} = 61 - 42 = 19$  days
- d) Phyllis might be wrong because she is assuming that the lowest recorded temperature is  $8^{\circ}\text{C}$  and the highest recorded temperature is  $20^{\circ}\text{C}$  but this might not be the case if the data is grouped. The lowest temperature could be higher than  $8^{\circ}\text{C}$  and the highest could be lower than  $20^{\circ}\text{C}$

5.



$$270 - 80 = 190 \text{ potatoes}$$

$$\text{Percentage of crop that can be sold} = \frac{190}{280} \times 100$$

$$= 68\% \text{ approximately}$$

\* Answer may vary



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