

Solutions to Past Paper Questions – Cumulative Frequency etc

10) (a) $4 + 10 + 34 = 48$ pigs in the first three class intervals.

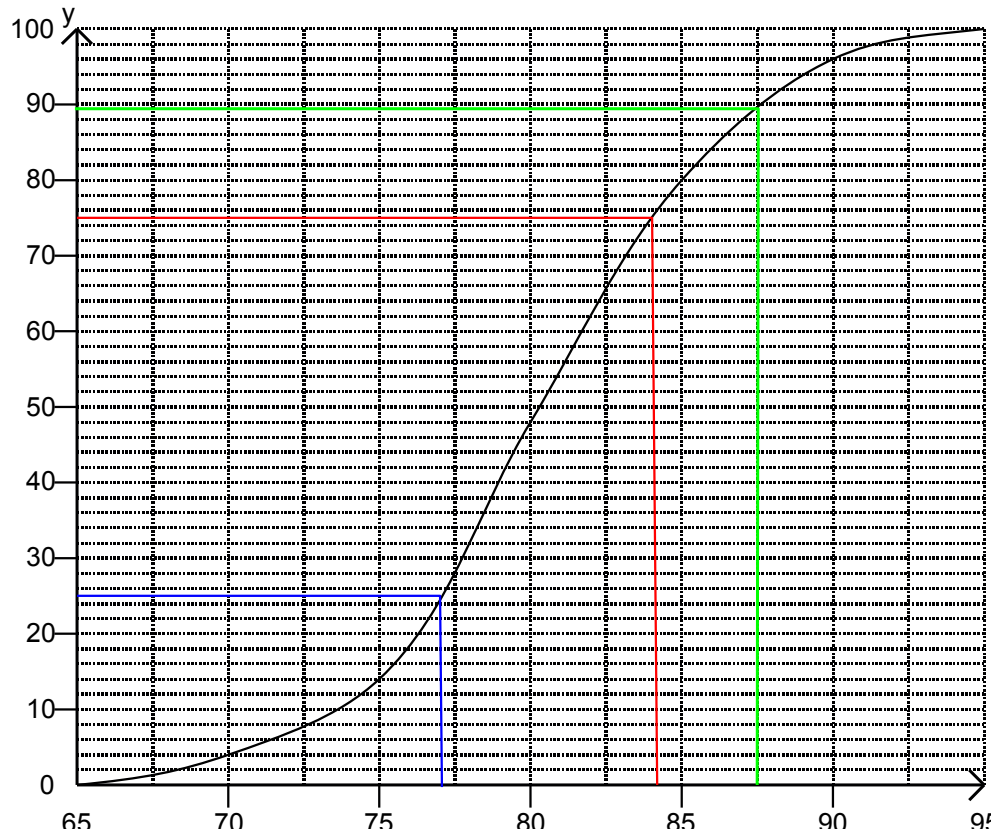
So 50^{th} and 51^{st} pigs are in the interval $80 < w \leq 85 \Rightarrow$ This interval contains the median.

(b) Cumulative frequencies 4, 14, 48, 80, 96, 100

(c) See graph

(d) (i) $Q_1 = 77$ (blue line)
 $Q_3 = 84$ (red line)
 $IQR = 84 - 77 = 7\text{kg}$

(ii) (See green line)
 $100 - 89 = 11$ pigs



12) (b) (i) Cumulative Frequencies: 1,3,7,14,33,35

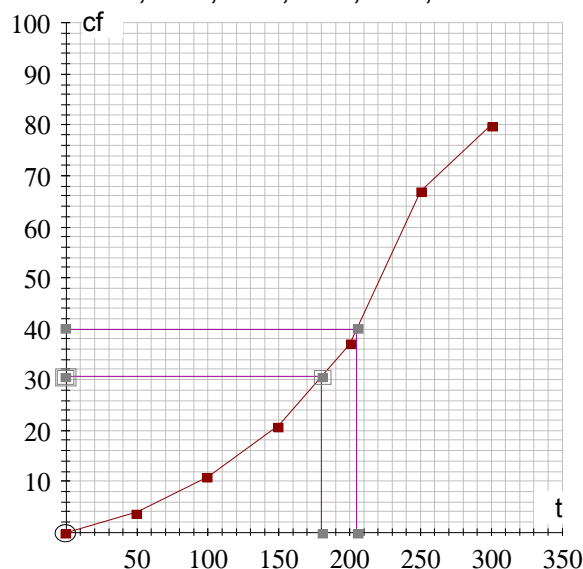
(ii) (See graph on next page.)

(iii) $Q_1 = \text{£}4.60$ (approx) from red line; $Q_3 = \text{£}5.20$ (approx) from blue line.

So $IQR = 5.20 - 4.60 = \text{£}0.60$

10) (a) cumulative frequency values: 4, 11, 21, 37, 67, 80

(b)



(c) (i) $80 \div 2 = 40$ so draw line across at 40 \Rightarrow median = 205 seconds

(ii) 3 minutes = 180 seconds, so draw line up at 180 \Rightarrow 31 customers waited less than three minutes. So $80 - 31 = 49$ waited more than three minutes.

12) (b) (ii) Graph:

