

①

Three Median Line : graphical approach to linear regression

Recall this approach from year 11 ??

Based on medians so less sensitive to outliers

① First step to drawing the three median line is to count to data values

② Draw vertical lines (dashed and light!) to separate the data into 3 even groups if possible. If not possible, make groups symmetrical

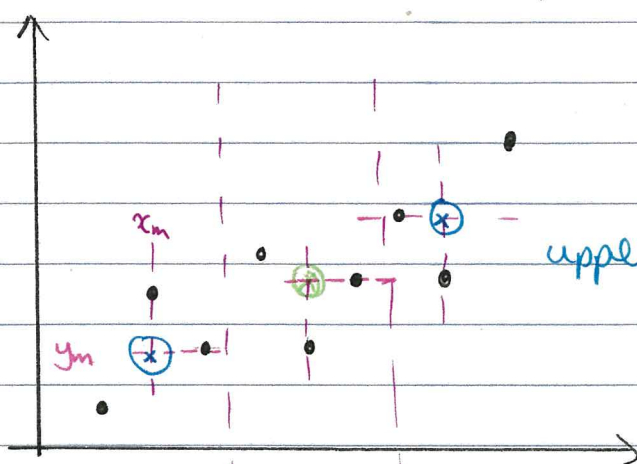
e.g. 10 points 3 | 4 | 3 ✓
 NOT 3 | 3 | 4 ✗
11 points 4 | 3 | 4 not 3 | 5 | 3

③ Now find the median of the x coords and median of y coords in each sections - first move across the page to find x_{median}

- then move up the page to find y_{median} where they meet is medians

④ Once you have the 3 medians, line your ruler up with the upper and lower medians.

⑤ Then move the ruler $\frac{1}{3}$ of the way towards the middle section's median and draw this line in.



9 dots :
 $\therefore 3 \mid 3 \mid 3$

upper median

This is the median for lower section

middle median

* These 3 medians are pretty close to being in line anyway *

You would line up 2 blue medians first then move up or down $\frac{1}{3}$ of the way to the middle median