**Video 1 - Drawing the graph**

The skateboarder Rick wants to come in the top \_\_\_\_\_\_\_\_\_\_ of competitors. We can use a cumulative frequency graph to look at the scores. There were \_\_\_\_\_\_\_\_\_\_ competitors in the whole competition. To complete a cumulative frequency table you need to work out a \_\_\_\_\_\_\_\_\_ total by \_\_\_\_\_\_\_\_\_ up the numbers in each row. You should always \_\_\_\_\_\_\_\_\_\_\_ that the total matches the total number of people in the question. We always plot the \_\_\_\_\_\_\_\_\_\_\_\_ on the vertical axis and the data we are looking at on the \_\_\_\_\_\_\_\_\_\_\_\_ axis. Then plot each point on the \_\_\_\_\_\_\_\_\_\_\_ point of each interval with the corresponding \_\_\_\_\_\_\_\_\_\_\_\_. Lastly join the points up with a \_\_\_\_\_\_\_\_\_\_\_\_\_.

Fill in the blanks using the following words (there are some red herrings):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ruler | quarter | multiplying | end | smooth curve |
| horizontal | fifty-six | cumulative frequency | half | adding |
| check | running | mid | total | ninety |

**Video 2 – Analysing the graph**

1. What are the three things that you will be asked to estimate from a cumulative frequency graph?
2. How do we find the position of the middle (median) value?
3. Do we need to use the formula $\frac{n+1}{2} $? If not, why not?
4. Which fractions represent the three items from question 1?
5. Why does Rick need to be above the upper quartile?

**Video 3 – Box plots**

1. How many years had it been since a survey of women’s body sizes had been conducted? How much money did this survey cost?
2. How many people were in the survey shown on the cumulative frequency chart?
3. What are the three vital statistics that Sue is interested in?
4. What other two values do we need to draw a box plot?
5. Label the diagram below with the five key parts of a box plot.



1. What are the two main factors that we should compare when looking at two or more box plots next to each other?