Think Global
Learning for a just and sustainable world

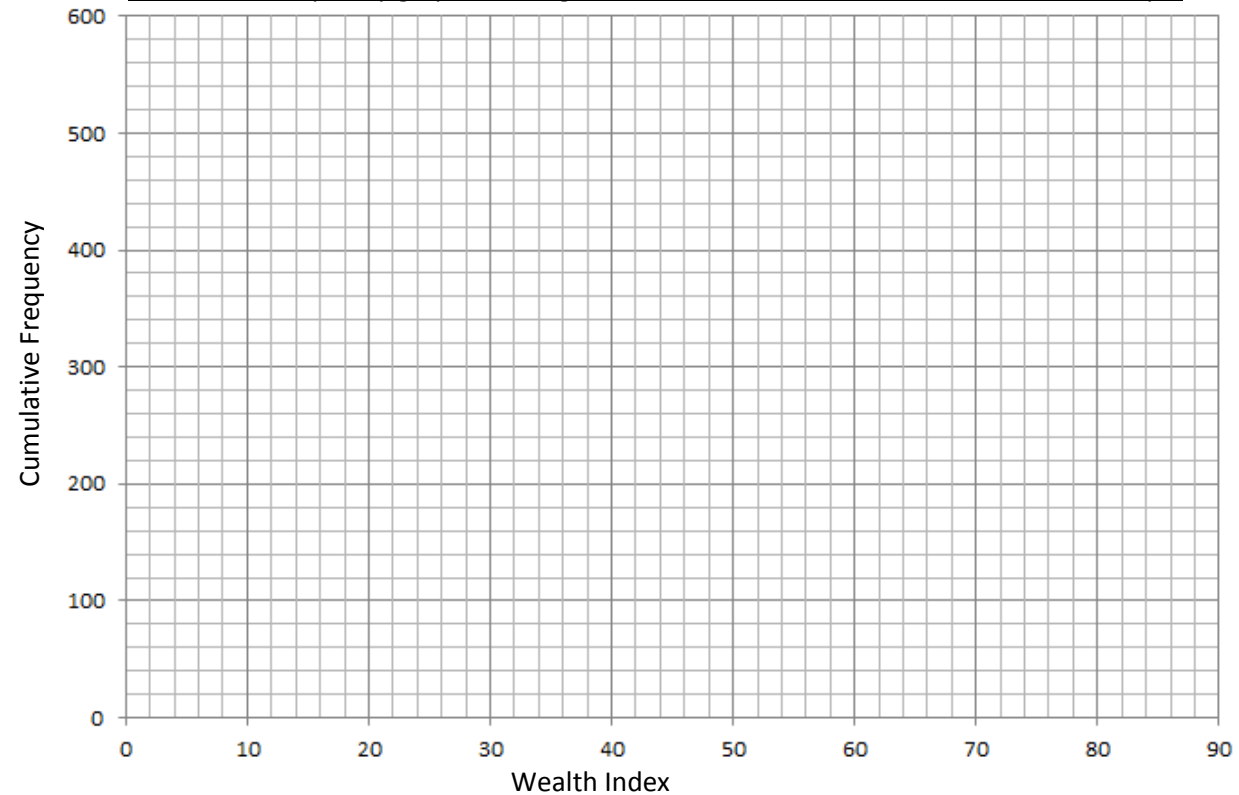*This table shows the wealth index of **571** non-WCA group members in Ethiopia.*

Step 1: Complete the table below with your 'running total'.

Step 2: Plot the points from your table onto the graph using the 'top' of the class interval. Join your points up with a smooth curve.

Step 3: Use the guidance at the bottom to find the position of the median, lower quartile and upper quartile. Use a ruler to read across at this number, hit the curve and draw a perpendicular line to read the value on the x axis. This is your median/lower quartile upper quartile. n here is 571 but it changes on the next two pages.

Wealth Index	Frequency
$0 \leq x < 10$	4
$10 \leq x < 20$	27
$20 \leq x < 30$	131
$30 \leq x < 40$	198
$40 \leq x < 50$	138
$50 \leq x < 60$	46
$60 \leq x < 70$	22
$70 \leq x < 80$	5

Wealth Index	Frequency
$0 \leq x < 10$	
$0 \leq x < 20$	
$0 \leq x < 30$	
$0 \leq x < 40$	
$0 \leq x < 50$	
$0 \leq x < 60$	
$0 \leq x < 70$	
$0 \leq x < 80$	

Cumulative frequency graph showing the wealth index of non-WCA members in Ethiopia

Position of the lower quartile = $\frac{n}{4}$
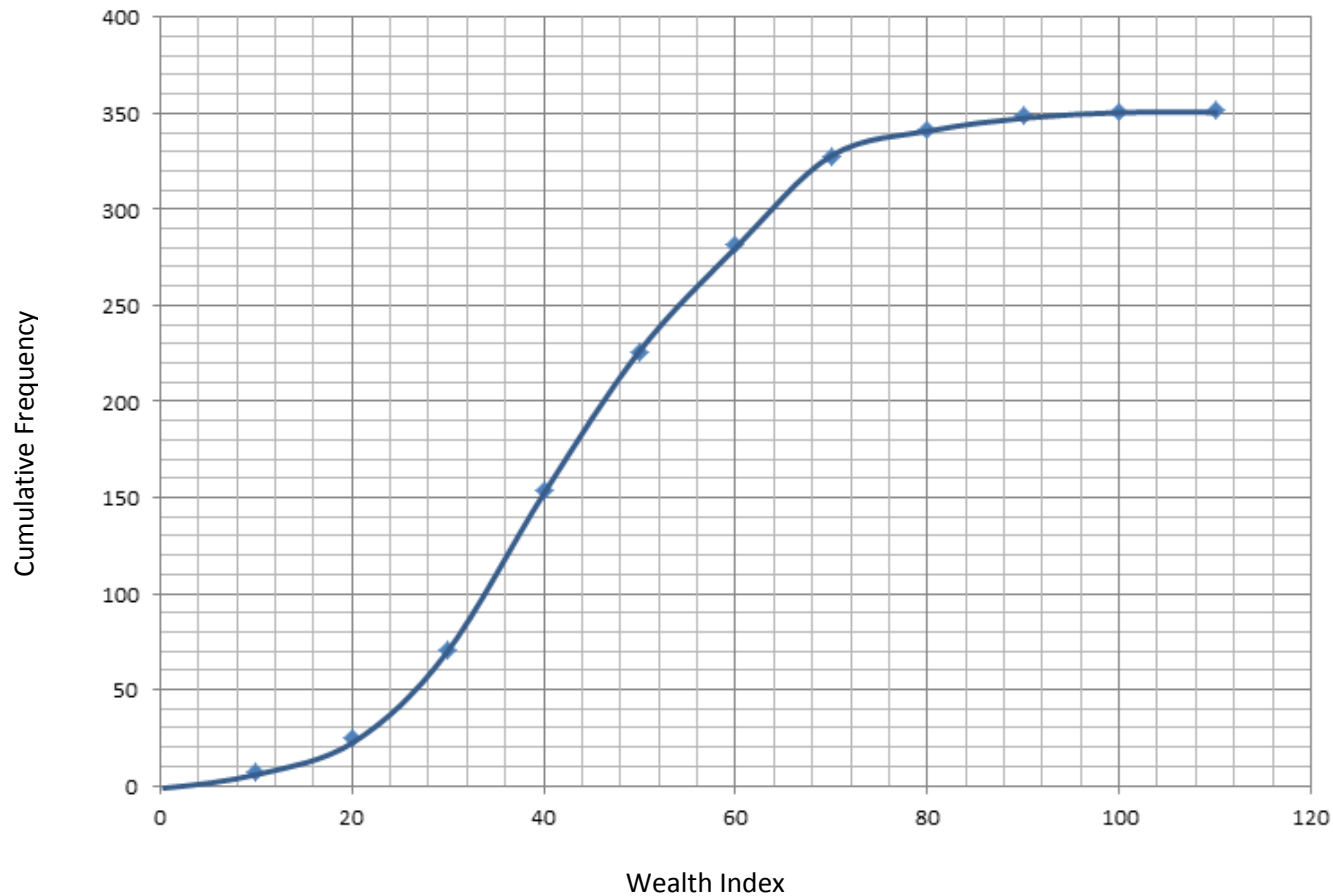
Position of the median = $\frac{n}{2}$

Position of the upper quartile = Add the lower quartile and median positions together.

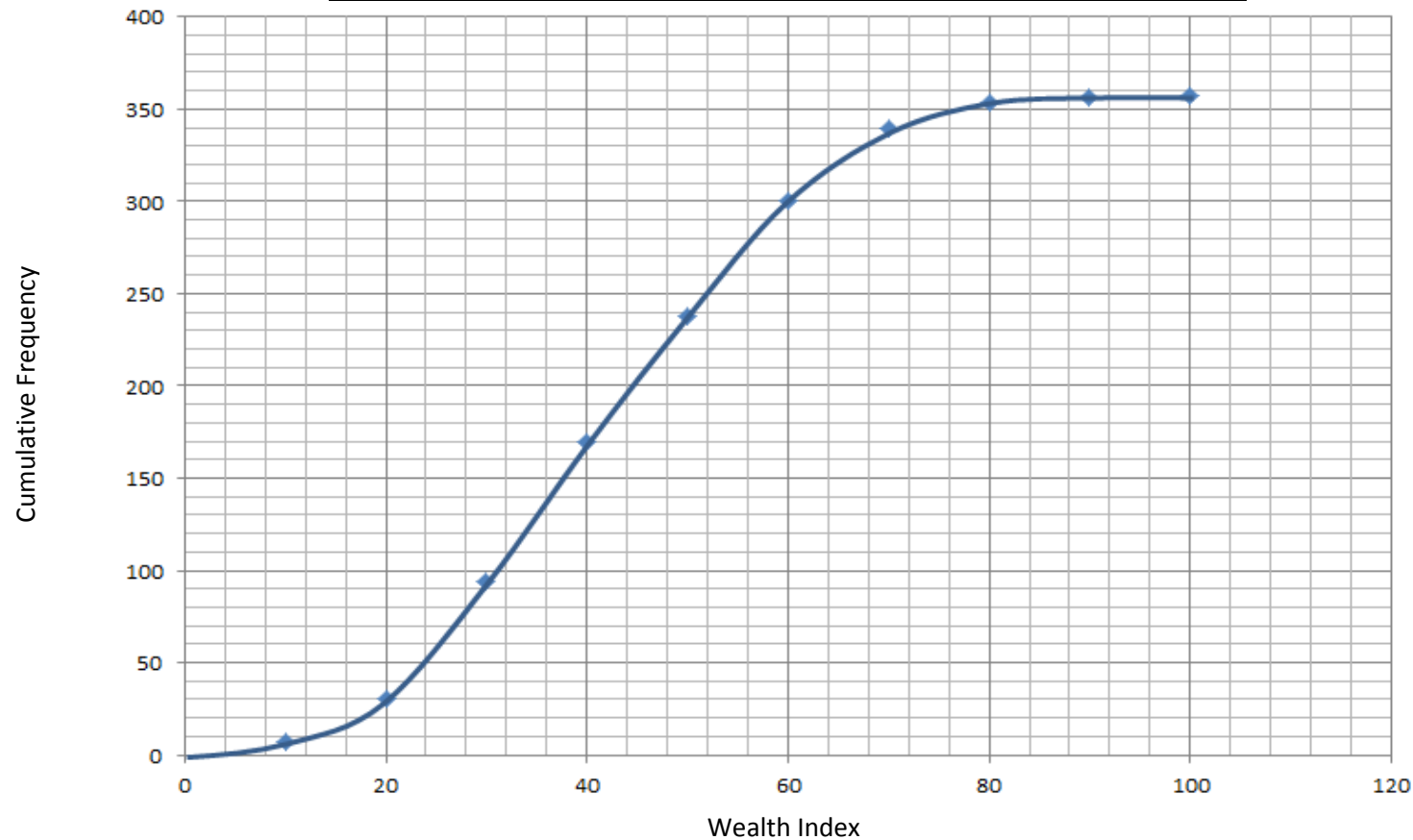n is the total number of pieces of data.

OXFAM

The cumulative frequency graph below shows the wealth index for 352 WCA members in Mali. Use the graph to find the median value, lower quartile and upper quartile values and add this information to the table at the end of the worksheet. How does this compare to Ethiopia? (Use the formulae on page one to find out what positions to read across at. Using a ruler, draw a perpendicular line when you hit the curve. The lower quartile / median / upper quartile will be the value you read on the x axis)

Cumulative frequency graph showing the wealth index of WCA members in Mali

The cumulative frequency graph below shows the wealth index for **364** non WCA members in Mali. Use the graph to find the median value, lower quartile and upper quartile values and add this information to the table at the end of the worksheet. How does this compare to Ethiopia? (Use the formulae on page one to find out what positions to read across at. Using a ruler, draw a perpendicular line when you hit the curve. The lower quartile / median / upper quartile will be the value you read on the x axis).

Cumulative frequency graph showing the wealth index of WCA members in Mali

WCA Members - Ethiopia

Lower Quartile	26
Median	**35**
Upper Quartile	46
IQR	**20**

WCA Members - Mali

Lower Quartile	
Median	
Upper Quartile	
IQR	

Non WCA Members - Ethiopia

Lower Quartile	
Median	
Upper Quartile	
IQR	

Non WCA Members - Mali

Lower Quartile	
Median	
Upper Quartile	
IQR	

Which of the four groups had the most consistent wealth index?
(Smallest IQR)

Which of the four groups had the highest wealth index on average?

(Greatest Median)

Do you think being in the WCA gives you a higher wealth index? What problems might there be with drawing such a conclusion?

Which of the four groups had the lowest wealth index on average?

(lowest Median)