

1. The maximum value of a data set is 84 and the minimum is 14. Find the range.

$$\text{range} = 84 - 14 = 70$$

2. The maximum value of a data set is 96 and the minimum is 32. Find the class width if 8 classes are being used.

$$\frac{96 - 32}{8} = \frac{64}{8} = 8 \Rightarrow \text{CLASS WIDTH} = 8$$

3. What is the class width of the frequency distribution?

Number of Cups of Coffee	Tally	Frequency
0 - 3	//	2
4 - 7	///	3
8 - 11	////	4
12 - 15	///	3
16 - 19	//	2

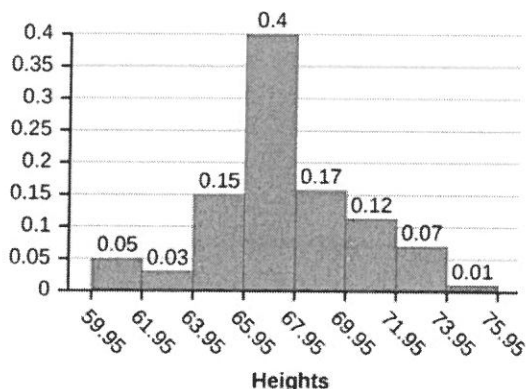
$$\begin{aligned} \text{CW} &= 4 - 0 = 4 \\ \text{or } 19 - 15 &= 4 \quad \text{etc} \\ \text{or } 11 - 8 + 1 &= 4 \end{aligned}$$

4. What is the class width of the frequency distribution?

Class (Marks)	Frequency
11 - 15	2
16 - 20	3
21 - 25	3
26 - 30	5
31 - 35	6
36 - 40	6
41 - 45	3
46 - 50	2
Total	30

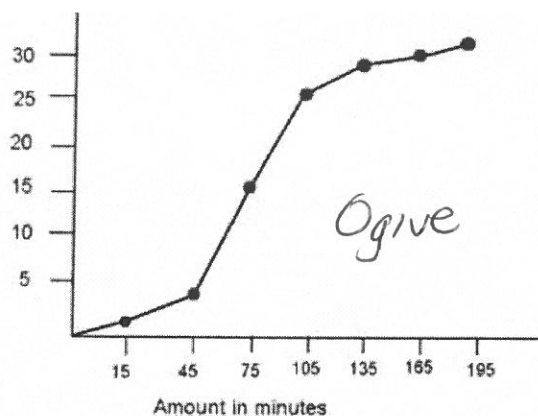
$$\begin{aligned} 16 - 11 &= 5 \\ \text{or} \\ 35 - 30 &= 5 \\ \text{or} \\ 45 - 41 + 1 &= 5 \end{aligned}$$

5. What is the name of this graph?

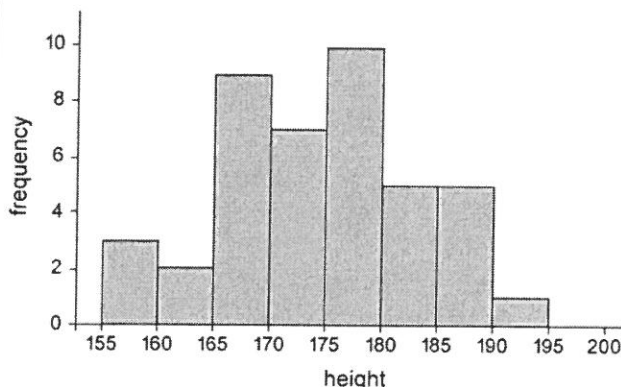


Relative Frequency Histogram

6. What is the name of this graph?

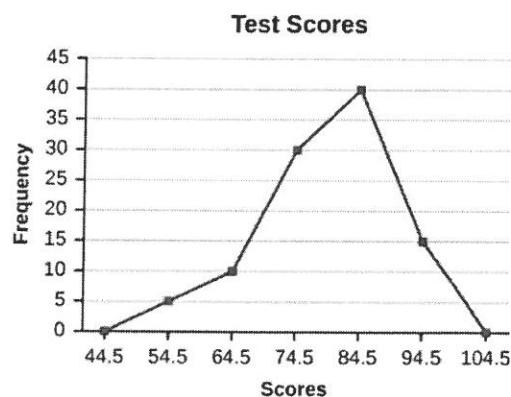


7. What is the name of this graph?



Histogram

8. What is the name of this graph?



Frequency Polygon

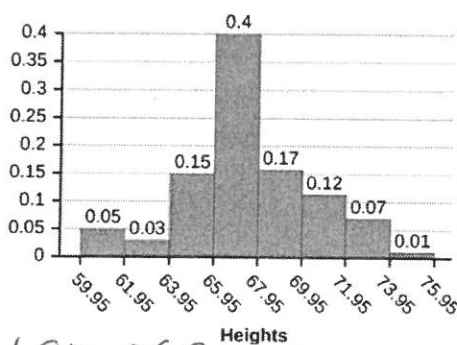
9. The max and min of a data set are 15 and 32. Find the class width if 6 classes are created.

$$\frac{32-15}{6} = \frac{17}{6} = 2\frac{5}{6} \Rightarrow 3 \quad \text{Class Width}$$

10. Using your class width and information from #9, create the classes.

15-17
18-20
21-23
24-26
27-29
30-32

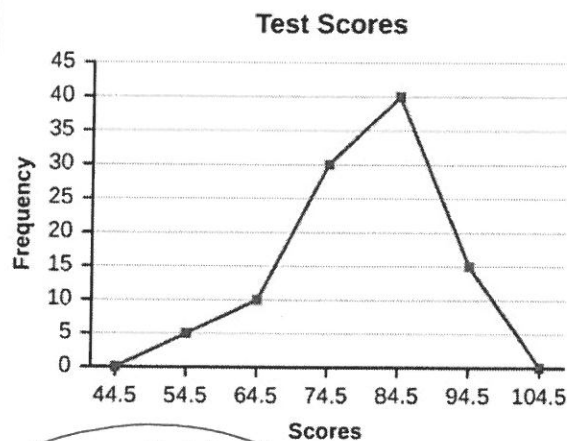
11. What is the class width?



$$61.95 - 59.95 = 2$$

Subtract any 2 consecutive boundaries

12. What is the class width?

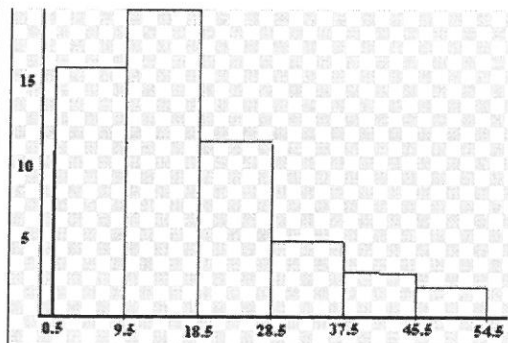


54.5

$$\frac{54.5 - 44.5}{10}$$

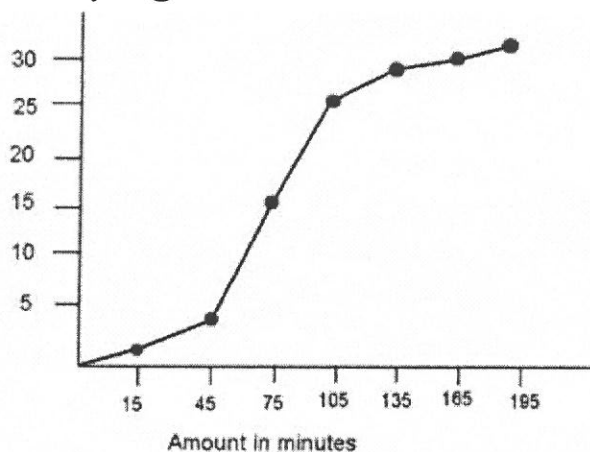
same as #11

13. What values are being used to label the x-axis?



Class Boundaries

14. How many people spent less than 105 minutes studying?



25 people

15. The class limits for a freq. dist. are below. What would be the start and end points for a freq. polygon?

Ages
10 - 14
15 - 19
20 - 24
25 - 29
30 - 34
35 - 39
40 - 44

$$\frac{10+14}{2} = \frac{24}{2} = 12 \quad w=5$$

$$\frac{12-5}{7}$$

7 12 17 22 27 32 37
47 ← 42

16. The class limits for a freq. dist. are shown below. What would the values on the x-axis be for an ogive?

Ages
10 - 14
15 - 19
20 - 24
25 - 29
30 - 34
35 - 39
40 - 44

9.5 14.5 19.5 24.5 29.5
44.5 39.5 34.5

17. A class has limits of 15-29. What is the midpoint of the class?

$$\frac{15 + 29}{2} = \frac{44}{2} = 22$$

18. What is the relative frequency of the 3rd class?

Class Interval	Frequency
6 - 11	6
12 - 17	23
18 - 23	34
24 - 29	17

$$\sum f = 80$$

$$\frac{34}{80} = .43$$

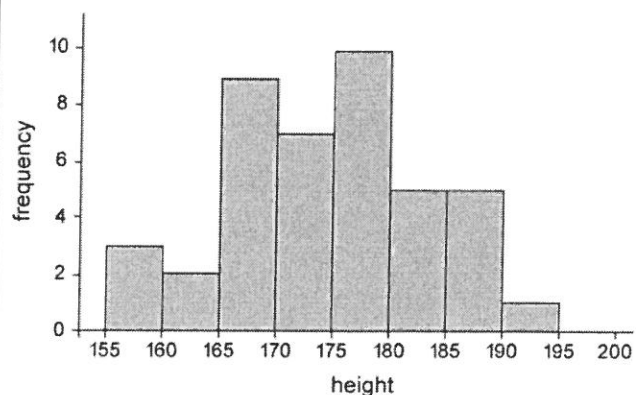
19. What is the cumulative frequency of the distribution below?

Class Interval	Frequency
6 - 11	6
12 - 17	23
18 - 23	34
24 - 29	17

$$+ 17$$

$$\sum f = 80$$

20. What are the class boundaries of the 2nd class?



$$160 - 165$$