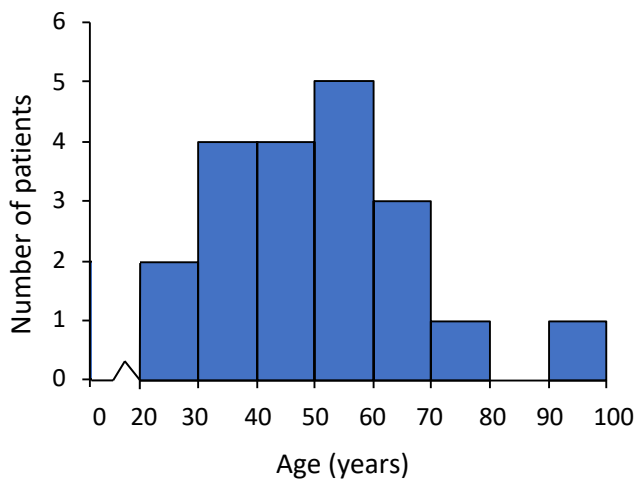


1.10 To investigate and use a histogram

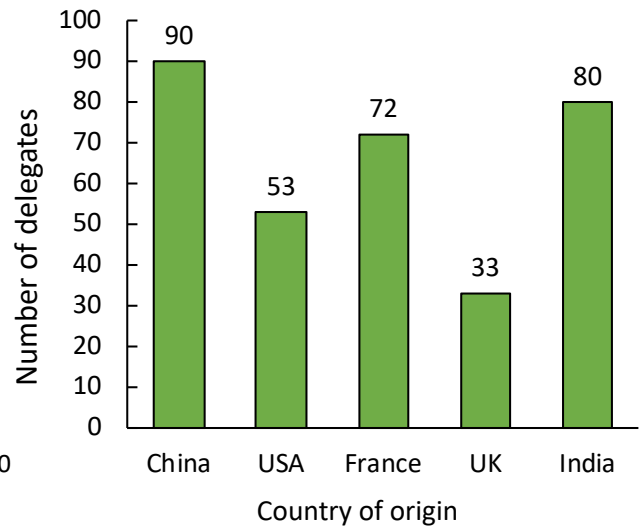
 **Finding out**

Age distribution of patients attending a day clinic



Histogram

Delegates at a world conference and their country of origin



Bar chart

What is the difference between a histogram and a bar chart? Describe the two graphs, noting their differences:



Collecting, comparing and calculating

A class of 30 students did a maths test and their results are shown below.

Student	1	2	3	4	5	6	7	8	9	10
Grade	20	54	7	80	62	45	12	89	55	30
Student	11	12	13	14	15	16	17	18	19	20
Grade	72	32	49	9	40	0	66	95	99	45
Student	21	22	23	24	25	26	27	28	29	30
Grade	48	65	99	39	54	60	44	71	85	15

Examine the results above and record the number of grades in each interval in the table below. (Note: the grade interval 0-10 starts at 0 and goes up to, but does not include, 10. This applies to all the intervals in the table, except for the last one.)

Grade	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Frequency										



Interpretation

What is the lowest grade recorded?

What is the highest grade recorded?

Therefore, what is the range of grades recorded?



Making judgements

Which type of graph would you use to represent these results?

Trend graph

Pie chart

Bar chart

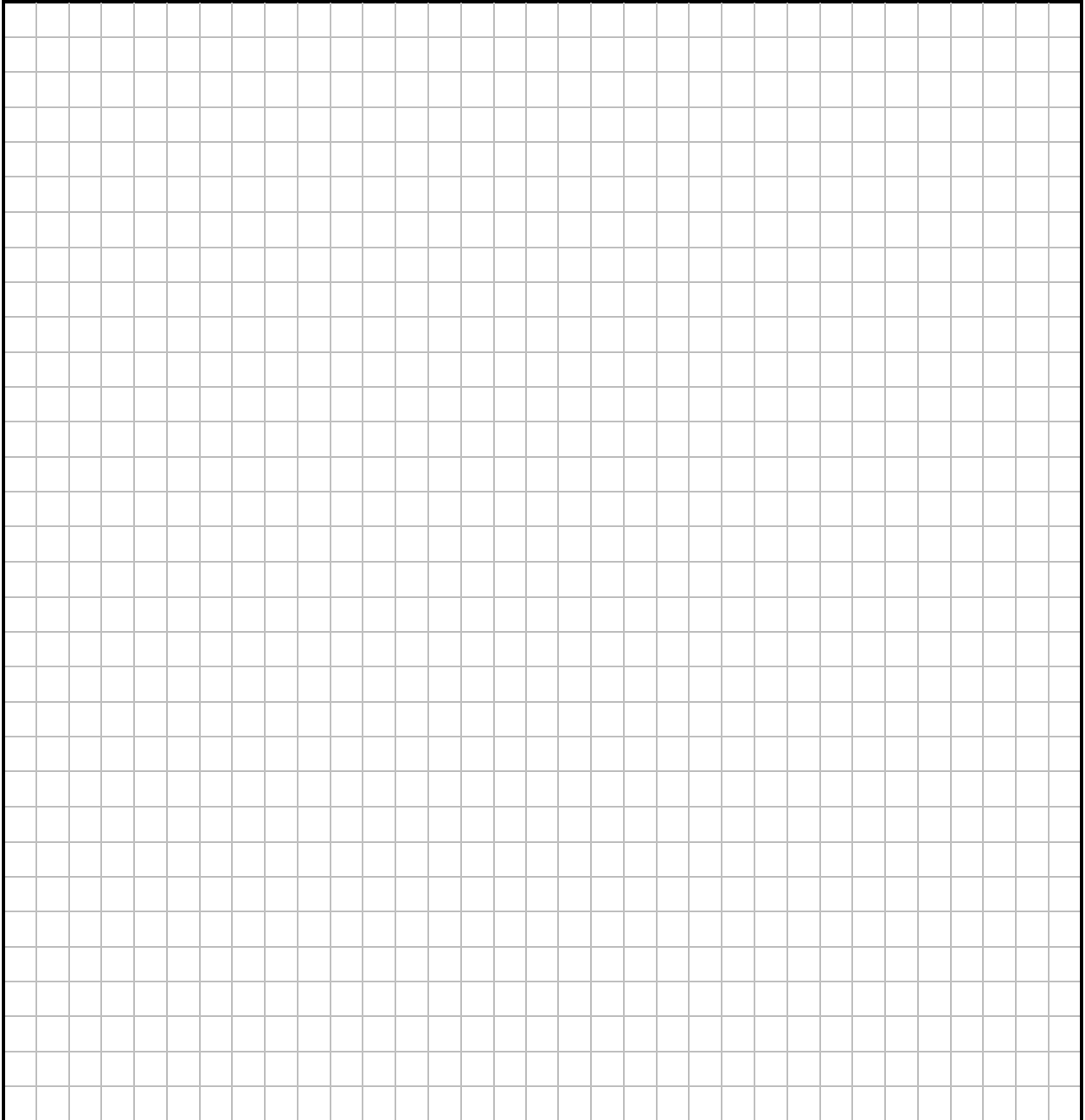
Histogram



Communicating

Draw and label a graph showing the frequency of each grade interval in the test results.

Title:





Further investigation

Examine the following data set. A group of people attending a school show were asked their age in years. Here are the results.

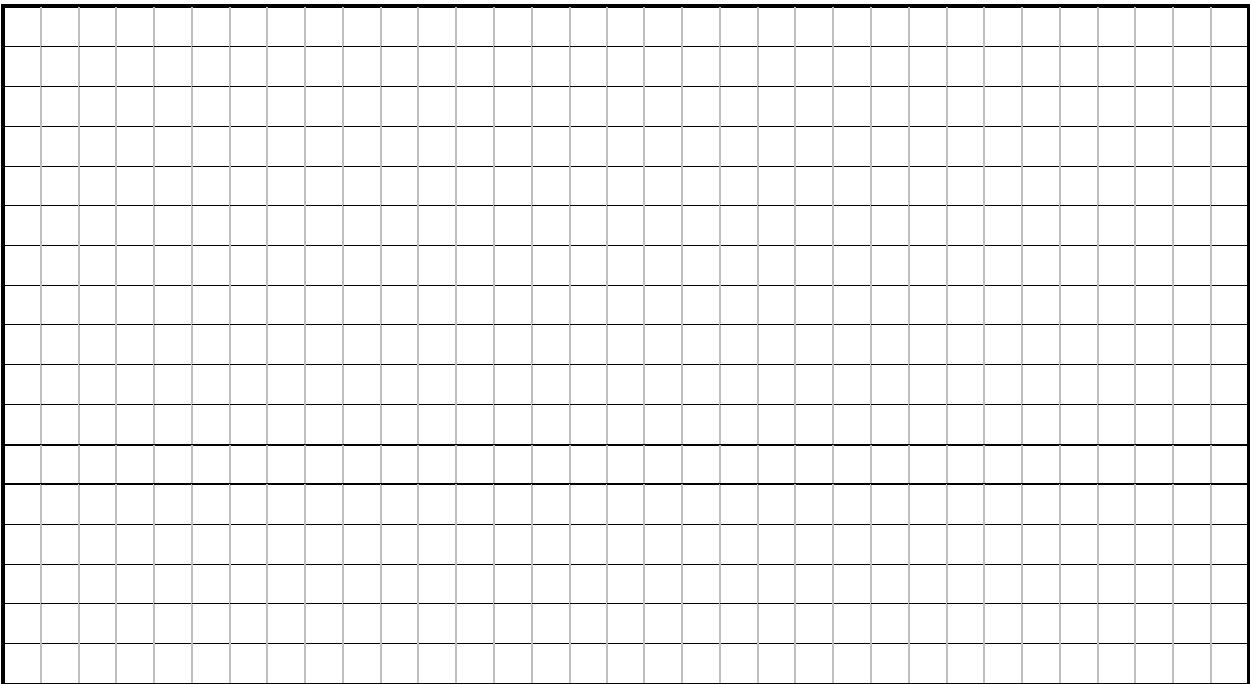
6	78	43	7	13	22	54	79	37	35
17	36	31	48	45	64	50	4	71	65

Reorganise the data set into a table using the intervals indicated below.

Age	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency								

Now draw a histogram to display the information in the above table.

Title:



Describe the distribution and give one reason why you think the distribution looks like this: