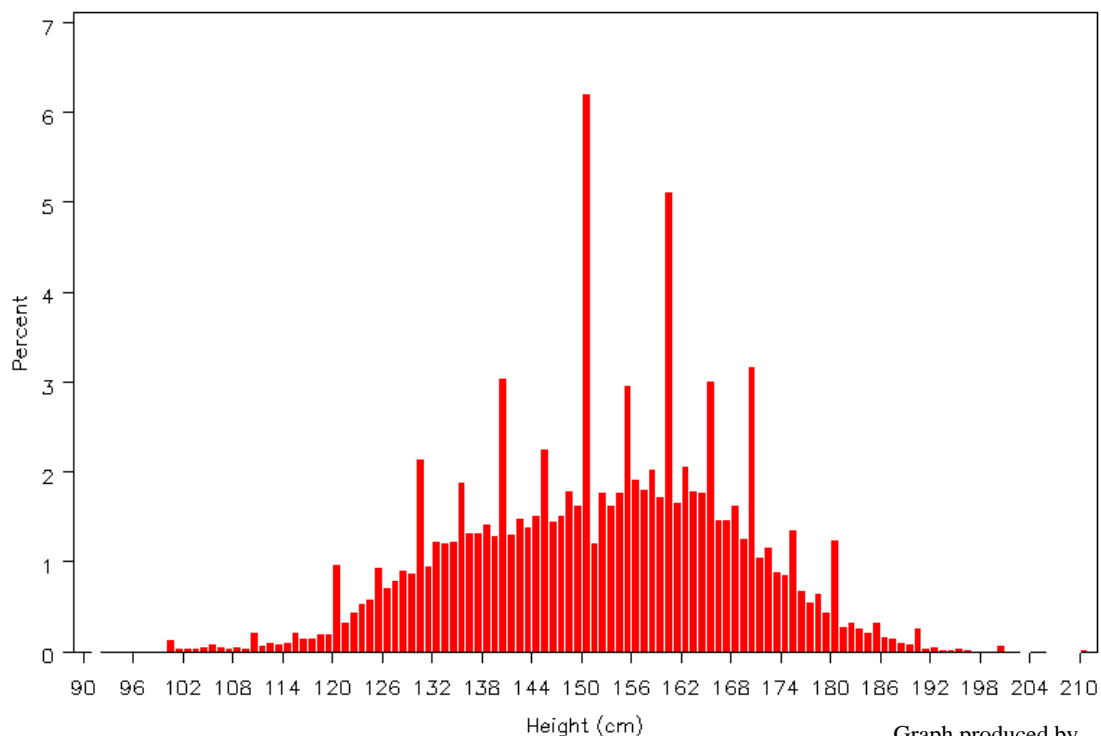


What a funny looking Graph!

Have a look at the graph below. It shows the heights of 707,428 South African children taken from *CensusAtSchool* in October 2001.

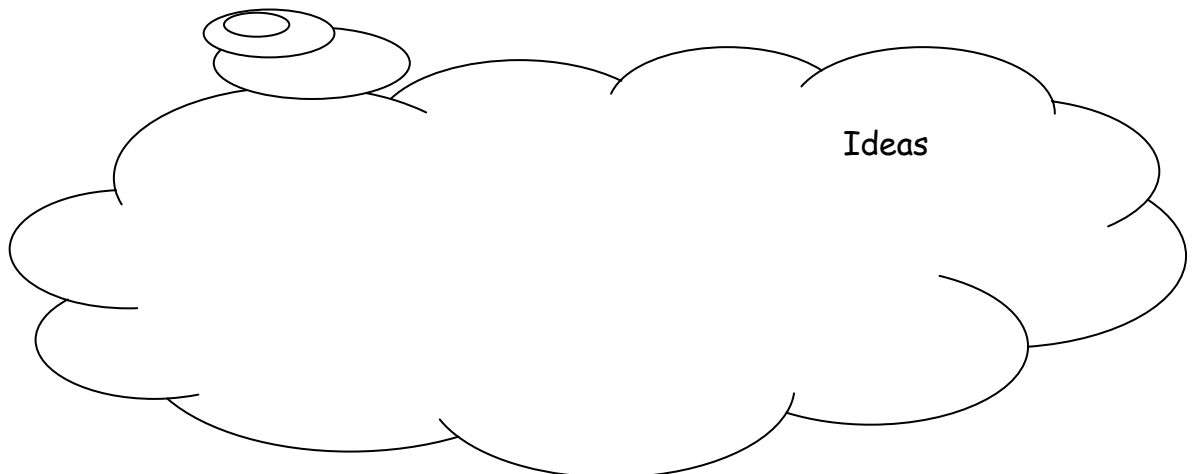
1. Discuss what you think about the graph. Why do think we are using Percentage on the y-axis? Can you come up with some reasons for the strange shape? What shape do you think it should be?

Height of South African Children

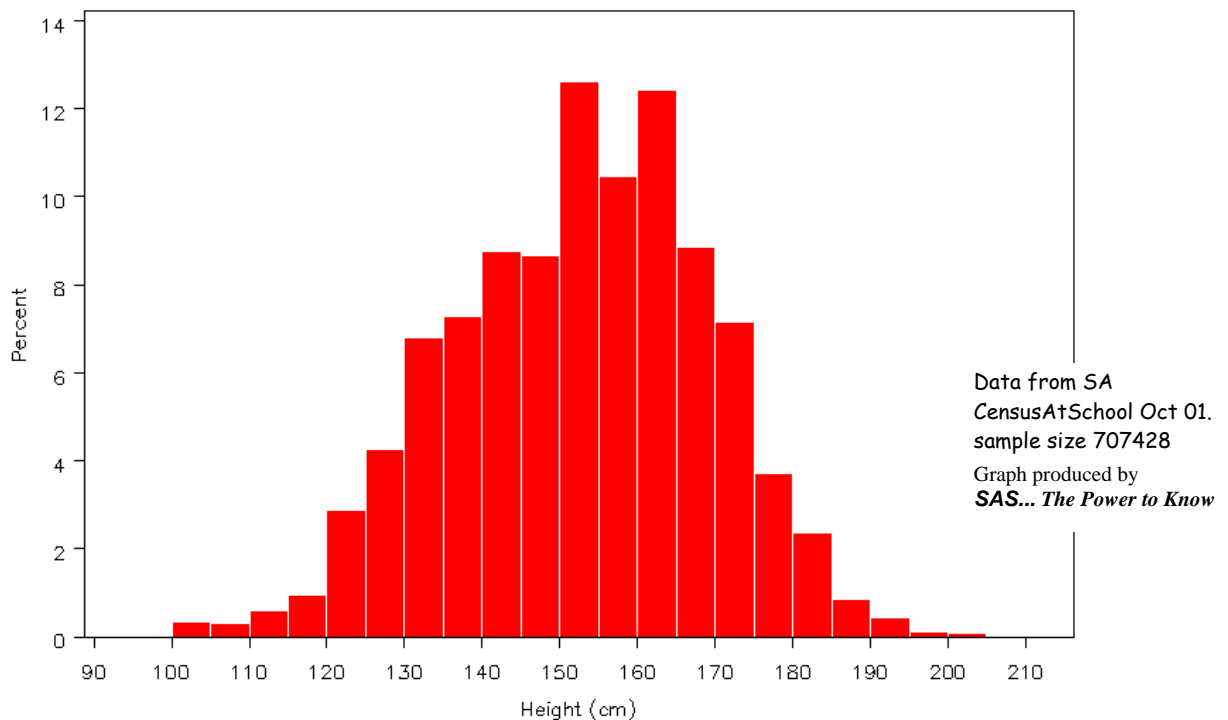


Graph produced by
SAS... The Power to Know

2. How could you make the graph appear as you think it should?



Height of South African Children



We solved the problem of children rounding off their heights to the nearest 5 or 10 by grouping the heights into groups of 5. Do you think this is a good solution?

Why do you think the children tended to round off their answers? What is an appropriate degree of accuracy for a measurement such as height? Look at the following and give them to an appropriate degree of accuracy in each case:

| Object | Actual | Appropriate | Reason |
|-------------------------------|--------------------|-------------|--------|
| Height of Oak tree | 8.2341 metres | | |
| Lottery Win | £492,234.12 | | |
| Bath plug width | 40 mm | | |
| Nurse annual salary | £19020 | | |
| Irish population July 2008 | 4,156,119 | | |
| 100m world record | 9.78 seconds | | |
| Area of Australia | 7,686,851.63 sq km | | |