

## PPDAC Cycle 2 – Height and Arm Span

### Problem

I wonder if there is a relationship between the height and arm span of students in my class

### Plan

We are going to record the height of students in my class by getting them to take their shoes off, get them to stand against a wall with a tape measure on it and have someone else put a book on their head and record their height in centimetres.

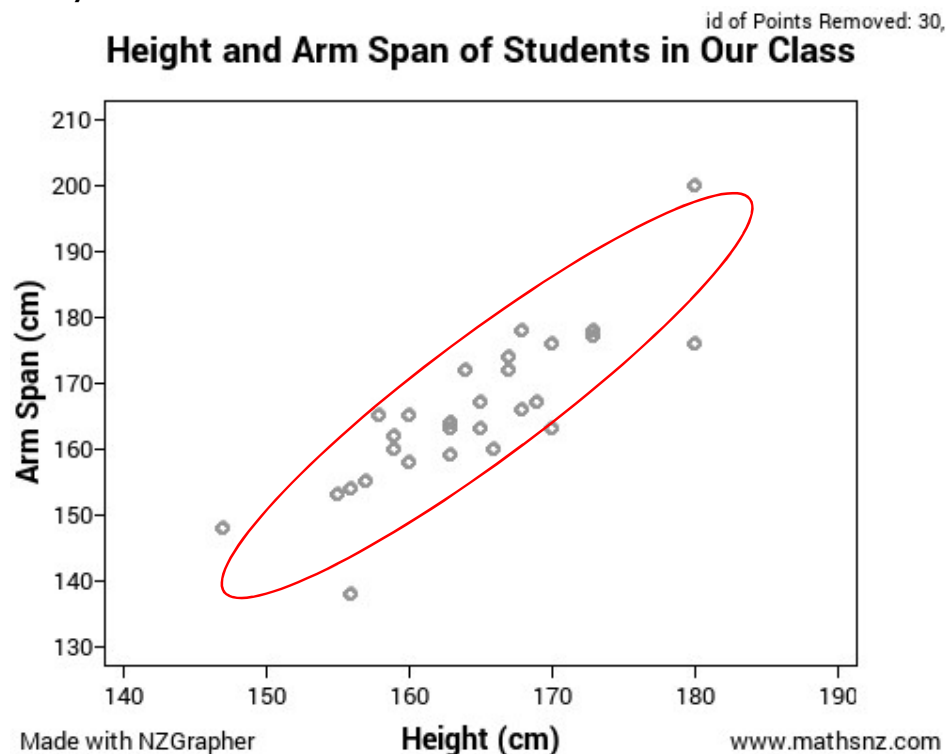
We are going to record the arm span of students in my class by standing facing a whiteboard and raising both arms until they are stretched out as far as we can, one of them touching the left of the board and getting a partner to read off how far I am reaching on the measuring tape.

I will record this data in a table.

### Data

Height (cm)	Arm span (cm)
159	160
163	159
163	163
173	177
165	167
155	153
170	163
167	172
156	138
169	167
166	160
163	164
170	176
167	174
168	166
156	154
165	163
160	158
180	200
163	164
160	165
168	178
173	178
164	172
157	155
158	165
159	162
147	148
180	176
168	-

## Analysis



I notice there was one student who did not record their arm span. As a result, we only have 29 points on our graph, not 30.

From my graph, I can see there is a positive trend. I know this because the points seem get higher as they go further right and the ellipse slopes upwards. Therefore, I can say as height increases, so does the arm span.

We can also see that the trend is also reasonably strong. I know this because the ellipse is quite skinny.

I can also see there is one student who has a much longer arm span than the others. They have a height of 180cm and an arm span of 200cm. This may be because they didn't measure it properly.

## Conclusion

This means if a student in our class is tall I would expect them to have a big arm span, and if they are short I would expect them to have a small arm span.