**Line Graphs** are mostly used for showing **data trends** over time. The time is put on the horizontal axis. Note that the axes in a line graph do not have to start from zero.

Look at the direction of the line (up or down) to see whether the data is **increasing** or **decreasing**. The

**slope** of the graph (also called the **gradient**) is very important.

Where the graph is very steep, the data is increasing (or decreasing) much faster than where it is less steep.

# Exercise 7

8 9 10 11 12 13 14 15 16 17 18

**Age (years)**

Genelle

185

180

175

170

165

160

155

150

145

140

135

130

125

120

**Height of the twins**

Genelle and Christopher are twins. Their Dad measured the height of the twins every birthday from age 8 to 18.

The graph shows how Genelle has grown.



**Height (cm)**

* 1. How tall was Genelle at age 8?



* 1. How tall was she aged 18?
  2. When did Genelle stop growing?
  3. How does the line in this graph show that she stopped growing?
  4. This table shows Christopher’s height:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| Height (cm) | 132 | 137 | 142 | 147 | 152 | 158 | 165 | 173 | 176 | 178 | 180 |

Plot Christopher’s heights on the same graph.

* 1. At what ages was Genelle taller than Christopher?
  2. During which three years was Christopher growing fastest? What on the graph tells you this?
  3. How much taller than Genelle was Christopher on their
     1. 8th birthday? b) 18th birthday?