

Suspect on Foot

You need: a computer, a classmate

ACTIVITY

Rewi's house was burgled while his family were out at school and work. The only clue the police have is a footprint in the ground outside the bathroom window. It is 28.4 centimetres long.

Rewi wonders whether he could find out the height of the burglar from the length of the footprint. He collects the footprint lengths and heights of 20 people:

Person	Height (cm)	Footprint (cm)	Person	Height (cm)	Footprint (cm)
1	153	23.6	11	145	24.7
2	176	29.3	12	166	26.7
3	186	33.1	13	158	25.9
4	168	27.8	14	186	32.7
5	192	35.2	15	182	31.9
6	177	28.6	16	154	24.6
7	169	27.5	17	163	20.3
8	161	25.8	18	132	16.7
9	159	26.9	19	153	19.4
10	149	25.7	20	158	21.4

- Measure the heights and footprints of 10 more people and add them to the data.
 - Enter the data into a computer spreadsheet and create a scatter plot.
 - Use the graph to suggest the height of the burglar.
- Describe precisely how you came to make your suggestion so that someone else could follow your instructions. You can use a diagram.



Estimating the value of one variable from the value of another