

MM Unit 1 Modelling with Power Functions

Modelling Activity: PARAGRAPHS

VCAA: Sample context for assessment – features of graphs of functions from data.

AIM: To find a model and fit a mathematical function to fit the data.

Initial class discussion:

Each paragraph has exactly the same amount of text and is set in the same font size and font theme.

How does the height of a paragraph depend on its width?

What values can width take?

What values can height take?

What mathematical function would fit the behaviour described above?

Predict first! Even if you don't know in detail, what do you know for sure?

Activity:

- In pairs, measure each paragraph and enter data in a spreadsheet on your TI Nspire CAS calculator.
- Graph your data.
- Fit an appropriate regression line.
- Write down the equation connecting height and width.
- Explain what any parameters mean.

Final class discussion:

Do all groups get the same equation?

Similarities / differences? Why?

Explain why your mathematical model makes sense.

TI Nspire CAS screens:



