

Generation powers

This task is about writing whole numbers in index form and solving maths problems involving powers.



Great grand-father Fraser

a) Mr Fraser had 5 sons.

- i) Each of his sons also had 5 sons (Mr Fraser's grandsons).
- ii) Each of those sons had 5 sons (Mr Fraser's great-grandsons).

b) Complete the table below to show how many **grandsons** and **great-grandsons** Mr Fraser had:

- i) as a whole number; and
- ii) in index form.

Generation	Number (in each generation)	Number (in index form)
Mr Fraser's sons	5	5^1
a) Mr Fraser's grandsons	i)	ii)
b) Mr Fraser's great-grandsons	i)	ii)

c) If this trend continued, show how many **great-great-grandsons** Mr Fraser would have. (Write your answer as a whole number.)

Show your working.

Number of great-great-grandsons: _____