

Week 7
Term 1
2019



HAWKER COLLEGE

Engage | Inspire | Achieve

Learning Brief

MA3

Goals



By the end of this unit students should:

- understand the concepts and skills in bivariate data
- apply reasoning skills and solve practical problems
- communicate their arguments and strategies
- interpret mathematical and statistical information
- use technology appropriately and efficiently

This week:

- geometric series
- sum to infinity

Theoretical Components

Resources:

For this week the theory work is in the *PDF file*: Week 7 Notes & Exercises

Sum to infinity and the concept of convergence

<https://www.youtube.com/watch?v=PSA6mr0oLzk>

Geometric series

$$S_n = \frac{a(r^n - 1)}{r - 1}; r \neq 1$$

Sum to infinity

$$S_\infty = \frac{a}{1 - r}$$

Knowledge Checklist

- Adding terms of an GP
- Simultaneous equations
- For r between -1 and 1 as n gets bigger, r^n gets smaller
- Adding an infinite number of terms when $-1 < r < 1$

Practical Components

There are questions to be answered in the booklet *Week 7 Notes & Exercises*

Investigation

On HawkerMaths and attached to this weeks work

On-line Quiz

There is an on-line quiz