

INKMATHS FLASHCARDS

Key definitions

7 cards · fronts and backs

Print double-sided, flipping on the long edge, and each answer lands behind its question. Cut along the card borders.

Definitions in precise wording, the standard results the formulae booklet does not print, a check-yourself question per topic, and the slips that lose marks. The same cards run on the website with spaced-repetition scheduling, at inkphysics.co.uk/maths/flashcards.

DEFINITION

Define: Function.

KEY DEFINITIONS

DEFINITION

Define: Increasing function on an interval.

KEY DEFINITIONS

DEFINITION

Define: Arithmetic sequence.

KEY DEFINITIONS

DEFINITION

Define: Geometric sequence.

KEY DEFINITIONS

DEFINITION

Define: Radian.

KEY DEFINITIONS

DEFINITION

Define: Counterexample.

KEY DEFINITIONS

CHECK YOURSELF

A geometric series converges. State the condition on the common ratio, and the sum to infinity.

KEY DEFINITIONS

DEFINITION

One whose outputs follow the order of its inputs: for x_2 beyond x_1 in the interval, $f(x_2)$ is at least $f(x_1)$, and strictly increasing means always greater. Say which you mean, then test it: $f'(x) \geq 0$ throughout gives the first, $f'(x) > 0$ the second.

KEY DEFINITIONS

DEFINITION

A mapping that sends every element of the domain to exactly one output. Two inputs may land on the same output. One input may never have two.

KEY DEFINITIONS

DEFINITION

A sequence in which the ratio between consecutive terms is constant, the common ratio r .

KEY DEFINITIONS

DEFINITION

A sequence in which the difference between consecutive terms is constant, the common difference d .

KEY DEFINITIONS

DEFINITION

A single specific case for which a general statement fails, which is enough to disprove the statement.

KEY DEFINITIONS

DEFINITION

The angle subtended at the centre of a circle by an arc equal in length to the radius.

KEY DEFINITIONS

CHECK YOURSELF

Convergence needs $|r| < 1$, and then the sum to infinity is $a/(1 - r)$.

KEY DEFINITIONS