

Unit 6: Series

Subunit 6.4: Sum to infinity of a geometric progression

Topical Question No: 1

- 8 A geometric progression is such that its second term is -120 and its sum to infinity is 160 .

(a) Find the common ratio. [4]

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(b) The first nine terms of the progression are now removed.

Find the sum to infinity of the remaining terms of the progression. [3]

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Topical Question No: 2

- 5** The fifth, sixth and seventh terms of a geometric progression are $8k$, -12 and $2k$ respectively.

Given that k is negative, find the sum to infinity of the progression.

[4]

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Topical Question No: 3

- 2** The second and third terms of a geometric progression are 10 and 8 respectively.

Find the sum to infinity.

[4]

[illegible]