

AQA – Sequence and series – A2 Mathematics P1

1. [June/2021/Paper_7357/1/No.3](#)

A geometric sequence has a sum to infinity of -3

A second sequence is formed by multiplying each term of the original sequence by -2

What is the sum to infinity of the new sequence?

Circle your answer.

[1 mark]

The sum to
infinity does not
exist

-6

-3

6

2. June/2021/Paper_7357/1/No.6

(a) The ninth term of an arithmetic series is 3

The sum of the first n terms of the series is S_n and $S_{21} = 42$

Find the first term and common difference of the series.

[4 marks]

(b) A second arithmetic series has first term -18 and common difference $\frac{3}{4}$

The sum of the first n terms of this series is T_n

Find the value of n such that $T_n = S_n$

[3 marks]