2016 Q2

2. A geometric sequence has second and fifth terms 108 and 4 respectively.
   (a) Calculate the value of the common ratio.
   (b) State why the associated geometric series has a sum to infinity.
   (c) Find the value of this sum to infinity.

Answers

(a)  \( r = \frac{1}{3} \)

(b) \( -1 < \frac{1}{3} < 1 \)

(c) Value = 486