

**15** The first term is  $a_1 = 6$  and the common ratio is  $r = -\frac{2}{3}$ . The sum is

$$S = a_1 \left( \frac{1}{1-r} \right) \Rightarrow S = 6 \left( \frac{1}{1 - \left(-\frac{2}{3}\right)} \right) = \frac{18}{5}.$$