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## Evaluate: Infinite Geometric Series

The first term and the common ratio of the geometric series are given. Determine if the geometric series converges or diverges. If it converges, find its sum.

1) $a=-12 ; r=\frac{9}{\sqrt{6}}$
2) $a=-\frac{1}{5} ; r=\frac{3}{5}$
3) $a=5 ; r=\frac{1}{\sqrt{3}}$
4) $a=-1.7 ; r=-1$
5) $a=7 ; r=\frac{3}{4}$
