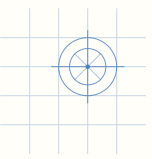


Algebra 2 — Sums of series



Name: _____

Date: _____

S_{∞} is the sum of ALL the terms. Each one multiplies by a fraction, so the terms shrink.

1 27, 18, 12, ... $S_{\infty} = 81$ _____

$$r = \frac{2}{3}$$
$$1 - \frac{2}{3} = \frac{1}{3}$$
$$S_{\infty} = 81$$

2 108, -72, 48, ... $S_{\infty} =$ _____

3 81, 27, 9, ... $S_{\infty} =$ _____

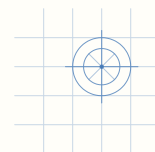
4 192, 48, 12, ... $S_{\infty} =$ _____

5 64, 16, 4, ... $S_{\infty} =$ _____

6 54, -18, 6, ... $S_{\infty} =$ _____



Sums of series — Answer key



1. S_{∞} for 27, 18, 12, ... = 81

2. S_{∞} for 108, -72, 48, ... = $\frac{324}{5}$

3. S_{∞} for 81, 27, 9, ... = $\frac{243}{2}$

4. S_{∞} for 192, 48, 12, ... = 256

5. S_{∞} for 64, 16, 4, ... = $\frac{256}{3}$

6. S_{∞} for 54, -18, 6, ... = $\frac{81}{2}$