

Name : _____

Evaluate: Geometric Series

T1S1

Evaluate each geometric series.

1) $5 + 10 + 20 + \dots$ upto 15 terms

2) $\frac{3}{4} + \frac{3}{10} + \frac{3}{25} + \dots$ upto 8 terms

3) $-7 - 21 - 63 - \dots$ upto 12 terms

4) $-3 + 12 - 48 + \dots$ upto 11 terms

5) $-\frac{1}{4} - \frac{1}{6} - \frac{1}{9} - \dots$ upto 9 terms

6) $2 - 10 + 50 - \dots$ upto 10 terms

7) $-8 + 16 - 32 + \dots$ upto 17 terms

8) $4 + 12\sqrt{3} + 108 + \dots$ upto 6 terms

Name : _____

Answer key

Evaluate: Geometric Series

T1S1

Evaluate each geometric series.

1) $5 + 10 + 20 + \dots$ upto 15 terms

163835

2) $\frac{3}{4} + \frac{3}{10} + \frac{3}{25} + \dots$ upto 8 terms

$\frac{390369}{31250}$ or $1\frac{77869}{31250}$

3) $-7 - 21 - 63 - \dots$ upto 12 terms

-1860040

4) $-3 + 12 - 48 + \dots$ upto 11 terms

-2516583

5) $-\frac{1}{4} - \frac{1}{6} - \frac{1}{9} - \dots$ upto 9 terms

$-\frac{19171}{26244}$

6) $2 - 10 + 50 - \dots$ upto 10 terms

-3255208

7) $-8 + 16 - 32 + \dots$ upto 17 terms

-349528

8) $4 + 12\sqrt{3} + 108 + \dots$ upto 6 terms

$3028(3\sqrt{3} + 1)$