

Name: _____

Date: _____

Finite Geometric Series**Evaluate the geometric series described.**

1) $\sum_{n=1}^8 2 \cdot (-2)^{n-1}$

Evaluate the related series of each sequence.

2) 2, 12, 72, 432

3) -1, 5, -25, 125

4) -1, 4, -16, 64

5) -2, 6, -18, 54, -162

Evaluate each geometric series described.

6) $\sum_{n=1}^{10} 4 \cdot (-3)^{n-1}$

7) $-2 - 6 - 18 - 54 \dots, n = 9$

8) $2 - 10 + 50 - 250 \dots, n = 8$

9) $\sum_{m=1}^9 -2^{m-1}$

10) $1 - 4 + 16 - 64 \dots, n = 9$



1) $\sum_{n=1}^8 2 \cdot (-2)^{n-1}$

– 170

2) 2, 12, 72, 432

518

3) – 1, 5, – 25, 125

104

4) – 1, 4, – 16, 64

51

5) – 2, 6, – 18, 54, – 162

– 122

6) $\sum_{n=1}^{10} 4 \cdot (-3)^{n-1}$

– 59048

7) $-2 - 6 - 18 - 54 \dots, n = 9$

– 19682

8) $2 - 10 + 50 - 250 \dots, n = 8$

– 130208

9) $\sum_{m=1}^9 -2^{m-1}$

– 511

10) $1 - 4 + 16 - 64 \dots, n = 9$

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