

Math Worksheets

**Finite Geometric Series**

 Evaluate the related series of each sequence.

1)  $-2, 4, -8, 16$

4)  $4, 8, 16, 32, 64$

2)  $-1, 6, -36, 216, -1,296$

5)  $-4, -12, -36, -108$

3)  $-2, 8, -32, 128, -512$

6)  $5, -15, 45, -135, 405$

 Evaluate each geometric series described.

7)  $1 + 5 + 25 + 125 \dots, n = 5$  \_\_\_\_\_

8)  $1 - 6 + 36 - 216 \dots, n = 6$  \_\_\_\_\_

9)  $-2 - 6 - 18 - 54 \dots, n = 8$  \_\_\_\_\_

10)  $0.2 - 1 + 5 - 25 \dots, n = 6$  \_\_\_\_\_

11)  $0.6 - 3.6 + 21.6 - 129.6 \dots, n = 5$  \_\_\_\_\_

12)  $-1 - 4 - 16 - 64 \dots, n = 6$  \_\_\_\_\_

13)  $a_1 = -2, r = 6, n = 5$  \_\_\_\_\_

14)  $a_1 = 1, r = 9, n = 6$  \_\_\_\_\_

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

18)  $\sum_{m=1}^6 (-4)^{m-1}$  \_\_\_\_\_

16)  $\sum_{n=1}^7 2 \cdot (-5)^{n-1}$  \_\_\_\_\_

19)  $\sum_{m=1}^6 5 \times (3)^{m-1}$  \_\_\_\_\_

17)  $\sum_{n=1}^{10} 0.1 \cdot (2)^{n-1}$  \_\_\_\_\_

20)  $\sum_{k=1}^5 7 \times (6)^{k-1}$  \_\_\_\_\_

## Answers of Worksheets

### Finite Geometric

1) 10

2) -1,111

3) -410

4) 124

5) -160

6) 305

7) 781

8) -6,665

9) -6,560

10) -520.8

11) 666.6

12) -1,365

13) -3,110

14) 66,430

15) -728

16) 26,042

17) 102.3

18) -819

19) 1,820

20) 10,885

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