

WORKSHEET

Geometric Series



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Problem 1: Determine the sum of the first 6 terms of the geometric series where the first term is 5 and the common ratio is 3.

Problem 2: Find the sum of the infinite geometric series given by $10 + 5 + 2.5 + \dots$

Problem 3: Find the sum of the infinite geometric series represented by:

$$7 - 7/2 + 7/4 - 7/8 + \dots$$

Problem 4: If the first term of a geometric series is 4 and the common ratio is $1/3$, find the sum of the first 5 terms.

Problem 5: Calculate the sum of the infinite geometric series given by:

$$15 + 5 + 5/3 + 5/9 + \dots$$

Problem 6: The first term of a geometric series is 20 and the common ratio is 0.2. Find the sum of the first 10 terms.

Problem 7: Determine the sum of the infinite geometric series where the first term is 10 and the common ratio is $1/5$.

Problem 8: Evaluate the sum of the infinite geometric series given by:

$$3/4 + 3/16 + 3/64 + \dots$$

Problem 9: Calculate the sum of the first 7 terms of a geometric series where the first term is 15 and the common ratio is 2.

Problem 10: A geometric series has a first term of 1 and a common ratio of 2. Determine the sum of the first 10 terms.

Answer Key

Geometric Series

1. 1820
2. 20
3. $14/3$
4. 6
5. 22.5
6. 24.94
7. 12.5
8. 1
9. 1905
10. 1023