**GEOMETRIC SERIES HOMEWORK** NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Find the sum of each series.*

1. 2.

4. 5. 6.

7. 8.

*Determine the number of terms in each series.*

9. 10.

11. 12.

*State whether each series will converge or diverges, then state the infinite sum if it exists.*

13. 14.

15. 16.

17. 18.

*Determine the common ratio of the geometric series given the infinite sum.*

19. 20.