

NAME

QUARTER 1

GRADE &amp; SECTION

DATE

## Activity: Geometric Series

**A.** Complete the table in describing the given geometric series.

|                                                             | Finite or Infinite? | Common ratio (r) | SUM |
|-------------------------------------------------------------|---------------------|------------------|-----|
| 1) $4 + \frac{4}{5} + \frac{4}{25} + \frac{4}{125} + \dots$ |                     |                  |     |
| 2) $1 - 3 + 9 - 27 + \dots$                                 |                     |                  |     |
| 3) $2 + 1 + \frac{1}{2} + \frac{1}{4} + \dots$              |                     |                  |     |
| 4) $-3 - 6 - 12 - 24, \dots, n = 8$                         |                     |                  |     |
| 5) $4 + 20 + 100 + \dots + 312500$                          |                     |                  |     |

**B.** Determine the needed information to find the sum of the geometric series. (*note: if infinite, just answer "INF"*)

1) Find the sum of the first 8 terms of the geometric series:

$$-1 + 2 - 4 + 8 \dots$$

$a_1 =$

$n =$

$r =$

Final Answer: The sum is

2) Find the sum of the geometric series:

$$4 - \frac{4}{3} + \frac{4}{9} - \frac{4}{27} \dots$$

$a_1 =$

$n =$

$r =$

Final Answer: The sum is

How many attempts? \_\_\_\_.  
How well did you do?



Need help!



Just OK!



Splendid

I LEARNED THAT...