

# Evaluating Infinite Geometric Series MAZE

**Directions:** Evaluate each infinite geometric series described. Use your answer to navigate through the maze. Show your work.

<p><b>START</b></p> $a_1 = 1$ $r = -\frac{4}{5}$	$a_1 = 1$ $r = \frac{1}{5}$	$a_1 = -32$ $r = -\frac{1}{2}$	$a_1 = 1$ $r = -0.6$
No Sum	2	$-\frac{64}{3}$	$-\frac{64}{3}$
A	B	C	D
$\frac{5}{8}$	$-\frac{8}{9}$	$-\frac{3}{64}$	0.625
1 - 4 + 16 - 64 ...	$-\frac{8}{5} + \frac{4}{5} - \frac{2}{5} + \frac{1}{5} + \dots$	$a_1 = 4$ $r = 5$ $n = 8$	-4 - 12 - 36 - 108, ...
$-\frac{5}{16}$	$\frac{2}{3}$	$-\frac{1}{2}$	$-\frac{1}{2}$
E	F	G	H
No Sum	No Sum	$-\frac{3}{2}$	NO Sum
$a_1 = -81$ $r = \frac{1}{3}$	$a_1 = -1$ $r = \frac{4}{5}$	$a_1 = 1$ $r = \frac{5}{3}$	$a_1 = 3.2$ $r = 0.2$
5	$-\frac{5}{2}$	1.25	1.25
I	J	K	L
$-\frac{243}{2}$	6.375	No Sum	4
Good Job!	5.1 + 1.02 + 0.204 + ...	$1 + \frac{1}{5} + \frac{1}{25} + \frac{1}{125} + \dots$	$\frac{16}{3} + 4 + 3 + \frac{9}{4} \dots$
124	$\frac{5}{4}$	32	32
The End	M	N	O