

Name & Surname: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_

 Grade 4 & 5 2025 # 25 Hand in by Thurs 28 Aug

Logan writes down some numbers according to the following rules:

Starting with the number 1, he doubles the number and adds 4, so the second number he writes is 6.

He now repeats this process, starting with the last number written, doubling and then adding 4, but he doesn’t write the hundreds digit if the number is bigger than 100.

What is the 2022nd number that Logan writes down?

The numbers are:

$1$

$1×2+4=6$

$6×2+4=16$

$16×2+4=36$

$36×2+4=76$

$76×2+4=156, so he writes 56$

$56×2+4=116,so he writes 16 $

Thus, the sequence goes 1 ; 6 ; 16 ; 36 ; 76 ; 56 ; 16 ; 36 ; 76 ; 56; ….

The 4th number is 36, the 8th number is 36, etc, so the 2024th number will be 36, which means that the 2022nd number will be 56