## Problem of the Week Problem D Welcome to a New Year!

 $5^3$  is a power with base 5 and exponent 3.

 $5^3$  means  $5 \times 5 \times 5$  and is equal to 125 when expressed as an integer.

When  $8^{674} \times 5^{2025}$  is expressed as an integer, how many digits are in the product?

