**YOU & MATHS** **Radical simplification** Only one of the following radicals can be simplified. Which one?

A $\sqrt[27]{0,8}$

C $\sqrt[6]{0,0008}$

B $\sqrt[4]{0,016}$

D $\sqrt[8]{1,69}$

$\sqrt[27]{0,8} = \sqrt[27]{2^3 \cdot 10^{-1}}$

$\sqrt[27]{2^3 \cdot 10^{-1}}$ cannot be simplified because the numbers 27, 3, $-1$ have greatest common divisor equal to 1. Therefore the radical $\sqrt[27]{0,8}$ cannot be simplified.

$\sqrt[4]{0,016} = \sqrt[4]{2^4 \cdot 10^{-3}}$

$\sqrt[4]{2^4 \cdot 10^{-3}}$ cannot be simplified because the numbers 4, 4, $-3$ have greatest common divisor equal to 1. Therefore the radical $\sqrt[4]{0,016}$ cannot be simplified.

$\sqrt[6]{0,0008} = \sqrt[6]{2^3 \cdot 10^{-4}}$

$\sqrt[6]{2^3 \cdot 10^{-4}}$ cannot be simplified because the numbers 6, 3, $-4$ have greatest common divisor equal to 1. Therefore the radical $\sqrt[6]{0,0008}$ cannot be simplified.

$\sqrt[8]{1,69} = \sqrt[8]{1,3^2} = \sqrt[4]{1,3}$

So the correct answer is D.