

## PERFECT POWERS

### Perfect Squares

$$\begin{aligned}1^2 &= 1 \\2^2 &= 4 \\3^2 &= 9 \\4^2 &= 16 \\5^2 &= 25 \\6^2 &= 36 \\7^2 &= 49 \\8^2 &= 64 \\9^2 &= 81 \\10^2 &= 100 \\11^2 &= 121 \\12^2 &= 144 \\13^2 &= 169 \\14^2 &= 196 \\15^2 &= 225 \\16^2 &= 256 \\20^2 &= 400 \\25^2 &= 625 \\30^2 &= 900\end{aligned}$$

### Perfect Cubes

$$\begin{aligned}1^3 &= 1 \\2^3 &= 8 \\3^3 &= 27 \\4^3 &= 64 \\5^3 &= 125 \\6^3 &= 216 \\7^3 &= 343 \\8^3 &= 512 \\9^3 &= 729 \\10^3 &= 1000 \\11^3 &= 1331 \\12^3 &= 1728 \\13^3 &= 2197 \\14^3 &= 2744 \\15^3 &= 3375\end{aligned}$$

### Perfect 4<sup>th</sup> Powers

$$\begin{aligned}1^4 &= 1 \\2^4 &= 16 \\3^4 &= 81 \\4^4 &= 256 \\5^4 &= 625 \\6^4 &= 1296 \\7^4 &= 2401 \\8^4 &= 4096 \\9^4 &= 6561 \\10^4 &= 10000 \\11^4 &= 14641 \\12^4 &= 20736 \\13^4 &= 28561 \\14^4 &= 38416 \\15^4 &= 50625\end{aligned}$$

### Perfect 5<sup>th</sup> Powers

$$\begin{aligned}1^5 &= 1 \\2^5 &= 32 \\3^5 &= 243 \\4^5 &= 1024 \\5^5 &= 3125 \\6^5 &= 7776 \\7^5 &= 16807 \\8^5 &= 32768 \\9^5 &= 59049 \\10^5 &= 100000 \\11^5 &= 161051 \\12^5 &= 248832 \\13^5 &= 371293 \\14^5 &= 537824 \\15^5 &= 759375\end{aligned}$$