

## KS3 Unit 32 Standard Form

Topic/Skill	Definition/Tips	Example
1. Standard Form	$A \times 10^b$ <i>where <math>1 \leq A &lt; 10</math>, <math>b = \text{integer}</math></i>	$8400 = 8.4 \times 10^3$ $0.00036 = 3.6 \times 10^{-4}$
2. Multiplying or Dividing with Standard Form	<p>Multiply: <b>Multiply the numbers and add the powers.</b></p> <p>Divide: <b>Divide the numbers and subtract the powers.</b></p>	$(1.2 \times 10^3) \times (4 \times 10^6) = 8.8 \times 10^9$ $(4.5 \times 10^5) \div (3 \times 10^2) = 1.5 \times 10^3$
3. Adding or Subtracting with Standard Form	<p>Convert in to ordinary numbers, <b>calculate</b> and then <b>convert back</b> in to standard form</p>	$\begin{aligned} 2.7 \times 10^4 + 4.6 \times 10^3 \\ = 27000 + 4600 = 31600 \\ = 3.16 \times 10^4 \end{aligned}$