



## QT Standard Form Calculations

1. Write ~~76000~~ in standard form

$$7.6 \times 10^4$$

2. Write  $3 \times 10^{-5}$  as an ordinary number

$$0.00003$$

3. Write ~~860~~  $\times 10^4$  standard form

$$8.60 \times 10^6 \Rightarrow 8.6 \times 10^6$$

4. Write  $7 \times 10^6$  as an ordinary number

$$7000000$$

5. Write these numbers in order of size. Start with the smallest number.

$3 \times 10^8$

$32 \times 10^6$

$0.034 \times 10^{10}$

$3400 \times 10^4$

$$\begin{array}{c} \cancel{300000000} \\ 300 \end{array}$$

$$\begin{array}{c} \cancel{32000000} \\ 32 \end{array}$$

$$\begin{array}{c} \cancel{3400000000} \\ 340 \end{array}$$

$$\begin{array}{c} \cancel{34000000} \\ 34 \end{array}$$

$32 \times 10^6$

$3400 \times 10^4$

$3 \times 10^8$

$0.034 \times 10^{10}$

6. Work out the value of  $6 \times 10^7 \times 5 \times 10^3$

$$(6 \times 5) \times (10^7 \times 10^3)$$

$$30 \times 10^{10}$$

$$\underline{3 \times 10^{11}}$$



7. Work out the value of  $3 \times 10^6 \times 4 \times 10^{-4}$

$$\begin{aligned} & (3 \times 4) \times (10^6 \times 10^{-4}) \\ & 12 \times 10^2 \\ & \underline{1.2 \times 10^3} \quad \Rightarrow \quad 1200 \end{aligned}$$

8. Work out the value of  $1.04 \times 10^3 \div 2 \times 10^{-5}$

$$\begin{aligned} & (1.04 \div 2) \times (10^3 \div 10^{-5}) \\ & 0.52 \times 10^8 \\ & \underline{\underline{5.2 \times 10^7}} \end{aligned}$$

9. Work out the value of  $16 \times 10^6 \div 8 \times 10^{-12}$

$$\begin{aligned} & (16 \div 8) \times (10^6 \div 10^{-12}) \\ & \underline{\underline{2 \times 10^{18}}} \end{aligned}$$

10. Work out the value of  $3.5 \times 10^3 \div 2.5 \times 10^{-9}$

$$\begin{aligned} & (3.5 \div 2.5) \times (10^3 \div 10^{-9}) \\ & \frac{3.5}{2.5} = \frac{35}{25} \\ & = \frac{7}{5} \\ & = \underline{\underline{1.4 \times 10^{12}}} \end{aligned}$$