QT Standard Form Calculations

1. Write 76000 in standard form

$$7.6 \times 10^4$$

2. Write 3×10^{-5} as an ordinary number

$$0.00003$$

3. Write 860×10^4 standard form

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

4. Write 7×10^6 as an ordinary number

$$7\,000\,000$$

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

3×10^8	32×10^6	0.034×10^{10}	3400×10^4
300	32	340	34

$$32 \times 10^6 \,,\; 3400 \times 10^4 \,,\; 3 \times 10^8 \,,\; 0.034 \times 10^{10}$$

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

$$(6 \times 5) \times (10^7 \times 10^3)$$
$$30 \quad \times \quad 10^{10}$$
$$\underline{3 \quad \times \quad 10^{11}}$$

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

$$(3 \times 4) \times (10^6 \times 10^{-4})$$
$$12 \quad \times 10^2$$
$$\underline{1 \cdot 2 \quad \times 10^3} \qquad \Rightarrow 1200$$

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

$$(1.04 \div 2) \times (10^3 \div 10^{-5})$$
$$0.52 \quad \times 10^8$$
$$\underline{\underline{5 \cdot 2 \quad \times 10^7}}$$

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

$$(16 \div 8) \times (10^6 \div 10^{-12})$$
$$\underline{\underline{2 \quad \times 10^{18}}}$$

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

$$(3.5 \div 2.5) \times (10^3 \div 10^{-9})$$
$$\frac{3 \cdot 5}{2 \cdot 5} = \frac{35}{25}$$
$$= \frac{7}{5}$$
$$= \underline{\underline{1 \cdot 4 \times 10^{12}}}$$