GCSE HIGHER · REVISION MAT 5

Standard form

1 Write 760 000 000 in standard form.

2 Write 4.1×10^{-4} as an ordinary number.

3 Explain why 0.5×10^{3} is not in standard form.

4 Work out, in standard form.

$(6.4 \times 10^{8}) \div (1.6 \times 10^{3})$

5 Show that

$3 \times 10^{4} + 3 \times 10^{3} = 3.3 \times 10^{4}$

6 A virus is 1.2×10^{-7} m long.

A bacterium is 3×10^{-6} m long.

How many times longer is the bacterium?

7 Show that

$$\frac{(4 \times 10^{5})^{2}}{8 \times 10^{3}} = 2 \times 10^{7}$$

8 A light-year is 9.46×10^{12} km.

A star is 4.2 light-years away.

A probe travels at 2×10^{4} km/h.

About how many years would it take?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 5

Standard form

1 7.6×10^8

2 0.00041

3 0.5 is not between 1 and 10; it should be 5×10^2.

4 4×10^5

4×10^5

5 $30\,000 + 3000 = 33\,000$

$= 3.3 \times 10^4$

6 $\frac{3 \times 10^{-6}}{1.2 \times 10^{-7}}$

25 times

7 $\frac{16 \times 10^{10}}{8 \times 10^3}$

$= 2 \times 10^7$

8 3.97×10^{13} km

$\div 2 \times 10^4 = 1.99 \times 10^9$ h

$\div (24 \times 365.25)$

About 2×10^5 years

Mr&Mrs MATHS