GCSE HIGHER · REVISION MAT 4

Standard form

1 Write 0.00009 in standard form.

2 Write 1.25×10^3 as an ordinary number.

3 Which is larger, 5×10^{-3} or 4×10^{-2}?

Explain.

4 A country uses 3.6×10^9 litres of water a day.

Its population is 6×10^7.

How many litres is this per person per day?

5 Show that

$(1.2 \times 10^5) \times (3 \times 10^{-2}) = 3.6 \times 10^3$

6 Sound travels at 3.4×10^2 m/s.

How long does it take to travel 1.7×10^4 m?

7 Show that

$5 \times 10^{-4} - 3 \times 10^{-5} = 4.7 \times 10^{-4}$

8 Earth has mass 6×10^{24} kg.

The Moon has mass 7.4×10^{22} kg.

How many times heavier is Earth, to 2 s.f.?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 4

Standard form

1 9×10^{-5}

2 1250

3 0.005 and 0.04

4×10^{-2} is larger.

4 $\frac{3.6 \times 10^{9}}{6 \times 10^{7}}$

60 litres

5 $3.6 \times 10^{5-2}$

$= 3.6 \times 10^{3}$

6 $\frac{1.7 \times 10^{4}}{3.4 \times 10^{2}}$

50 seconds

7 $0.0005 - 0.00003 = 0.00047$

$= 4.7 \times 10^{-4}$

8 $\frac{6 \times 10^{24}}{7.4 \times 10^{22}} = 81.08...$

81 times

Mr&Mrs MATHS