GCSE FOUNDATION · REVISION MAT 4

Index notation

1 Write each as a single power.

(a) $9^3 \times 9^5$

(b) $5^7 \div 5^5$

2 (a) Write $(7^3)^3$ as a single power of 7.

(b) Work out the value of 4^3

3 Max says,

"$4^2 \times 4^7 = 16^9$"

Explain the mistake Max has made.

4 Show that $10^3 \div 5^2 = 40$

5 Find the value of n.

$7^n \times 7^6 = 7^{12} \div 7^2$

6 Which is bigger, 6^3 or 3^5?

Show how you decide.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 4

Index notation

1 (a) 9^8

(b) 5^2

2 (a) 7^9

(b) **64**

3 When multiplying powers of the same base, add the powers but keep the base the same.

$4^2 \times 4^7 = 4^9$

4 $1000 \div 25 = 40$ ✓

5 Right side = 7^{10}

$n + 6 = 10$

$n = 4$

6 $6^3 = 216$

$3^5 = 243$

3^5 is bigger