GCSE FOUNDATION · REVISION MAT 2

Index notation

1 Write each as a single power.

(a) $7^2 \times 7^6$

(b) $4^8 \div 4^3$

2 (a) Write $(2^3)^5$ as a single power of 2.

(b) Work out the value of 3^4

3 Kit says,

"$2^5 \times 2^3 = 4^8$"

Explain the mistake Kit has made.

4 Show that $3^4 \div 9 = 9$

5 Find the value of n.

$3^n \times 3^4 = 3^{11} \div 3^3$

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

Show how you decide.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 2

Index notation

1 (a) 7^8

(b) 4^5

2 (a) 2^{15}

(b) **81**

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

$2^5 \times 2^3 = 2^8$

4 $81 \div 9 = 9$ ✓

5 Right side = 3^8

$n + 4 = 8$

$n = 4$

6 $3^5 = 243$

$5^3 = 125$

3^5 is bigger