

1 BIDMAS

- a) Work out $12 - 3 \times 2$
b) Work out 2×3^2

a) $12 - 6 = 6$
b) $2 \times 9 = 18$

2 BIDMAS: placing brackets

- a) Put one pair of brackets in to make this true.
 $2 + 4 \times 5 = 30$
b) Two friends share the cost of a £7 pizza and a £5 drink equally. Write this as one calculation. Work out each share.

a) $(2 + 4) \times 5 = 30$
b) $(7 + 5) \div 2 = £6$

3 Index notation

- a) Complete the table.
b) Write $7 \times 7 \times 7 \times 7$ in index form.

Multiplication	5×5	$2 \times 2 \times 2 \times 2$
Index form	5^2	2^4
Value	25	16

a) see the table
b) 7^4

4 Using index notation

- a) Which is bigger, 5^2 or 2^5 ? Work them both out.
b) Find the missing power. $10^{\square} = 1000$

a) $5^2 = 25$, $2^5 = 32$, so 2^5
b) $10 \times 10 \times 10 = 1000$, so 3

Algebra 2

revision mat answers

Foundation B

5 Index laws: multiplying

- a) The tiles show $3^2 \times 3^4$. Write it as a single power of 3.
b) Write $5^3 \times 5^6$ as a single power of 5.

$\begin{array}{|c|c|} \hline 3 & 3 \\ \hline \end{array} \times \begin{array}{|c|c|c|c|} \hline 3 & 3 & 3 & 3 \\ \hline \end{array}$
 $3^2 \qquad 3^4$

a) $2 + 4 = 6$, so 3^6
b) $3 + 6 = 9$, so 5^9

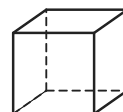
6 Index laws: dividing

- a) Write $4^7 \div 4^3$ as a single power of 4.
b) Write $6^5 \div 6$ as a single power of 6.

a) $7 - 3 = 4$, so 4^4
b) $6 = 6^1$, $5 - 1 = 4$, so 6^4

7 Calculator: powers and roots

- a) Work out 2.5^2
b) This cube has a volume of 343 cm^3 . Find the length of one edge.



Volume = 343 cm^3

a) $2.5 \times 2.5 = 6.25$
b) $\sqrt[3]{343} = 7 \text{ cm}$

8 Calculator: brackets

Zak wants to work out $(15 + 4.5) \times 3$. He types $15 + 4.5 \times 3 =$ and gets this.

- a) What answer should he get?
b) Use your calculator to work out $(7.5 - 2.1) \times 4$

28.5

a) $19.5 \times 3 = 58.5$
b) $5.4 \times 4 = 21.6$