

1 BIDMAS

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- a) Work out $5 + 3 \times (8 - 2)^2 \div 9$
- b) Amir works out $20 - 12 \div 4 + 2$ and gets 4. What did he do wrong? Work out the right answer.

2 Listing factors

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- a) List all the factors of 90.
- b) Which whole number below 50 has the most factors?

3 Prime factors

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- a) Write 1176 as a product of its prime factors in index form.
- b) Use your answer to write 2352 as a product of its prime factors in index form.

4 HCF and LCM

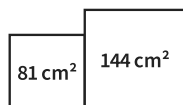
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- a) Find the HCF and the LCM of 84 and 120.
- b) A board 72 cm by 132 cm is covered with equal squares, with no gaps. Find the largest side the squares can have. How many squares is that?

5 Squares and square roots

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- a) Work out $15^2 - \sqrt{196}$
- b) Two squares sit side by side. Work out the perimeter of the shape they make.



Number

revision mat

6 Cubes and cube roots

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- a) Work out $3^3 - (-2)^3$
- b) Find two positive cube numbers that add up to 91.

7 Estimating roots

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- a) $\sqrt[3]{50}$ lies between two whole numbers next to each other. Which numbers?
- b) Write in order, smallest first.
 $\sqrt{55}$ 7.4 $\sqrt[3]{400}$

8 Index laws

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- a) Simplify $4p^3q \times 3p^2q^4$
- b) Find the value of n . $\frac{(7^3)^n}{7^2} = 7^{13}$

9 Fractional indices

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- a) Work out $16^{\frac{3}{4}}$
- b) Write $\frac{1}{49}$ and $\sqrt{7}$ as powers of 7.

10 Using a calculator

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- Use your calculator for this box.
- a) Work out $\frac{\sqrt{12.6^2 - 4.3^2}}{2.8}$ Give your answer to 3 significant figures.
- b) Work out $6.4^{-2} + \sqrt[3]{15.625}$ Give your answer to 4 significant figures.