Mathematics

Prime Building Blocks Downloadable Resource

Mr Langton

Prime Building Blocks

1. Complete the frames to find ways of showing the numbers as products of different combinations of factors.

a) $24 = \underline{\quad} \times \underline{\quad}$

$24 = \underline{\quad} \times \underline{\quad} \times \underline{\quad}$

$24 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$

b) $120 = \underline{\quad} \times \underline{\quad}$

$120 = \underline{\quad} \times \underline{\quad} \times \underline{\quad}$

$120 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$

2. Complete the frames so that each equation shows a number as the product of its prime factors.

a) $12 = 2 \times 3 \times \underline{\quad}$

b) $20 = \underline{\quad} \times 2 \times 5$

c) $30 = 2 \times \underline{\quad} \times 5$

d) $36 = \underline{\quad} \times 2 \times 3 \times 3$

e) $45 = 3 \times \underline{\quad} \times \underline{\quad}$

f) $54 = 2 \times 3 \times \underline{\quad} \times \underline{\quad}$

3. The numbers below have been cut out of a 100 square and the numbers rubbed out. Use the clues to write the correct numbers back in the grids.

5^2

3×4^2 6^2

$2^3 \times 7$

$2^3 \times 3^2$

$3^3 \times 2$ 4^3

2×5^2

3^4