

Number and Algebra mixed part 1

Whether you are a parent, teacher or home school educator, we've compiled examples of activities, games and puzzles which can be used to support the learning of algebra.

These examples are taken from the 'Number and Algebra mixed' packs found in our SMILE resource collection. The mathematical demand increases as you work through the packs. There are lots more ideas in the complete packs, which can be downloaded at <https://www.stem.org.uk/rxzed>

Answers to cards can be found at <https://www.stem.org.uk/rxxo5>

Smile Worksheet 2213

Sum Messages

Shade in the boxes where the answer is the target number.

target 12

4×3	$7 + 5$	$6 + 6$
$8 + 5$	$19 - 7$	$20 - 5$
4×4	$3 + 9$	$7 + 7$
$23 - 7$	$24 \div 2$	6×3
$30 - 16$	$17 - 5$	$22 - 8$

target 4

$23 - 19$	$6 - 2$	$40 \div 10$
2×2	$3 + 3$	$6 - 2$
$24 \div 6$	$5 - 2$	$20 - 16$
$3 + 1$	$12 \div 2$	$8 \div 2$
4×1	$12 \div 3$	$7 - 3$

target 7

$2 + 5$	7×1	$10 - 3$
$14 \div 2$	$15 \div 3$	$21 \div 3$
$12 - 5$	$5 + 2$	$3 + 4$
$20 - 13$	$20 - 12$	$15 - 9$
$6 + 1$	6×1	$10 - 4$

The word is _____

target 8

$16 \div 2$	$4 + 4$	$11 - 3$
8×1	$11 - 4$	$24 \div 3$
$15 - 7$	$17 - 9$	2×4
$6 + 2$	3×3	$20 - 12$
$14 - 6$	$14 - 7$	$5 + 3$

target 10

$7 + 3$	$9 + 1$	2×5
$23 - 13$	$4 + 4$	$4 + 5$
$2 + 8$	$11 - 4$	3×2
$5 + 5$	3×3	$23 - 7$
$11 - 1$	$13 - 3$	$4 + 6$

target 3

$6 \div 2$	$11 - 8$	$12 \div 4$
$7 - 4$	$11 - 4$	$5 - 3$
$24 - 21$	$8 - 5$	2×1
$9 \div 3$	$1 + 3$	$12 \div 3$
$12 - 9$	$5 - 2$	$20 - 17$

The word is _____

Make up a grid for the first letter of your name.

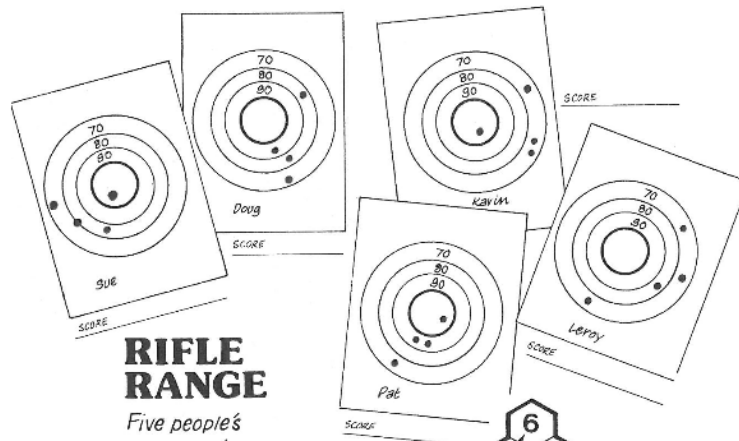
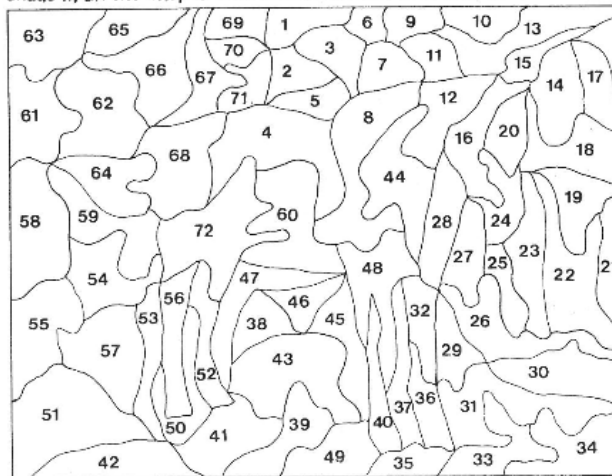
Puzzle Worksheet

How many scramble?

TANDOUSH 1000 ERUNDDH ____
NET ____ INTHEGEE ____ TOW ____
ENO ____ WYTENT ____ EISNEXT ____

Hidden Picture

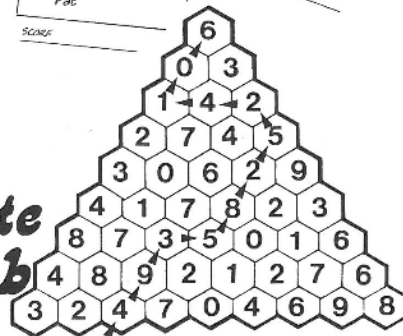
Shade in all the shapes whose numbers are multiples of 4



RIFLE RANGE

Five people's
score cards –
who won?

Route climb



This route adds up to 49
 $4 + 9 + 3 + 5 + 8 + 2 + 5 + 2 + 4 + 0 + 6 = 49$
Find a route which adds up to 41.

Find the route

Start at  and find your way to the 

- You can only go into the squares where the answer is **10** or **24**.

Do not use a calculator.

- Colour in your route as you go along.

- You can only move   or  

								
$2 + 2$	3×4	$11 - 3$	12×7	$7 + 3$	$8 + 1$	$5 + 2$	$3 + 6$	$9 - 6$
$1 + 5$	$10 \div 2$	$9 + 6$	$7 + 5$	$6 + 4$	$11 - 1$	8×3	2×12	3×3
$11 - 1$	$20 \div 2$	5×2	$2 + 14$	$5 \div 5$	$4 + 5$	6×5	$9 + 1$	$12 - 0$
$3 + 7$	11×1	$26 - 2$	$20 + 4$	6×4	$4 + 4$	$7 + 14$	6×4	10×0
$1 + 9$	$15 - 5$	$9 + 2$	$18 - 6$	$12 + 12$	$8 + 2$	$10 + 0$	4×6	$23 + 2$
$3 + 11$	12×2	$13 - 3$	$5 + 5$	$6 \div 3$	$7 + 6$	8×1	$3 + 6$	$7 + 7$
$5 + 3$	$7 + 2$	9×3	3×8	$10 + 0$	10×0	$9 + 4$	$4 + 3$	3×9
$4 + 0$	10×10	$8 + 1$	$4 \div 4$	$28 - 4$	$3 + 2$	2×6	$13 - 4$	$18 \div 9$
								



Cross Puzzles

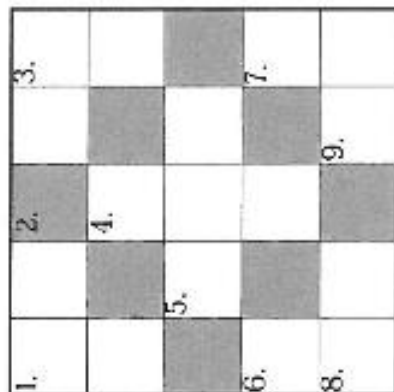
Use the clues to solve these two cross puzzles.

Clues across

1. $20 - 3$
2. $1 + 3 + 5 + 7 + 9$
5. Two hundred and sixty-four
8. One less than 70
9. $10 \times 10 - 1$

Clues down

1. Number of hours from midnight to noon.
3. Half of a hundred.
4. $188 + 100 + 78$
6. $2 \times 2 \times 2 \times 2$
7. 7×7



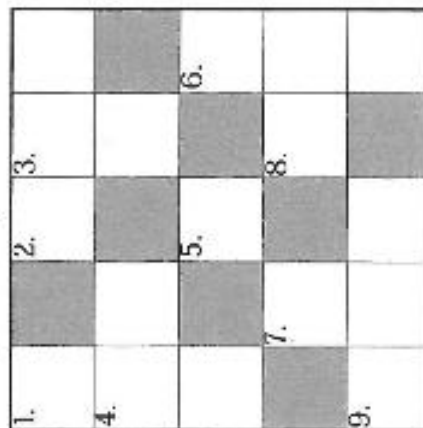
Clues across

1. $100 + 10 + 1$
3. Number of hours in one day.
4. $2 \times 2 \times 2 \times 2 \times 2$
6. Half of 10
7. 6×10
8. $3 \times 3 \times 3$
9. $110 - 5$

Clues down

1. $8 + 6$
2. $6\frac{1}{2} \times 2$
3. $6 \times 6 \times 6$
5. 3 less than 300
8. $9 + 7 + 5 + 3 + 1$

Use the grid below to invent a cross puzzle of your own.



Write the clues and give it to someone else to solve.

Clues across

1. _____
2. _____
4. _____
8. _____
9. _____

Clues down

1. _____
3. _____
5. _____
6. _____
7. _____

