SUPER 12s

SUPER 12s CAN BE USED AS AN INDIVIDUALISED MASTERY LEARNING PROGRAM.

2 ALGEBRA
2.7 FACTORISING
2.7 LEVEL 2

NAME : _____

Skill description: Factorising binomial expressions that contain a common numeric factor.

Essential Revision: Use the distributive law to expand the brackets.

1. $2(x+7)$

2. $4(y-3)$

3. $4(a+11)$

4. $5(x-5)$

5. $9(b+5)$

6. $8(x-3)$

7.

$2(d-p)$

8.

$a(b+d)$

9.

$a(c-3)$

10.

$p(x+12)$

11.

$13(x-3)$

12.

$y(x-z)$

Solutions can be found at the end of the booklet.

score $\frac{\quad}{12}$

STRATEGIES TO SOLVE THE PROBLEMS

Example 1

Factorise.

$$15x - 12$$

Step 1

Look for common factors in the numbers or variables. It often helps to list the factors of each term.

$$15x - 12$$

Factors

1, 3, 5, 15 1, 2, 3, 4, 6, 12

Step 2

Choose the **highest common factor** and place that outside the bracket.

Highest common factor $= 3$

$$15x - 12$$

$$3(\quad\quad)$$

Step 3

To determine the terms that go inside the bracket divide each of the original terms by the factor.

$$15x - 12$$

$$\div 3$$

$$3(5x - 4)$$

QUESTIONS

Factorise.

1. $3x + 15$

2. $10x + 15$

3. $18b + 45$

4. $10x + 14$

5. $12x - 20$

6. $32c + 24$

7.

$12x - 60$

8.

$21a + 24$

9.

$10x + 110$

10.

$18d - 60$

11.

$16x + 10$

12.

$12x - 40$

SOLUTIONS CAN BE FOUND AT THE END OF THE BOOKLET.

score $\frac{\quad}{12}$

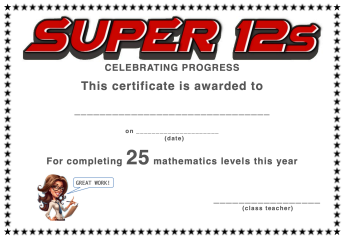
MASTERY TEST

Teacher's signature

I'VE COMPLETED

_____

LEVELS THIS YEAR



Solutions to Essential Revision

1. $2x + 14$	2. $4y - 12$
3. $4a + 44$	4. $5x - 25$
5. $9b + 45$	6. $8x - 24$
7. $2d - 2p$	8. $ab + ad$
9. $ac - 3a$	10. $px + 12p$
11. $13x - 39$	12. $xy - yz$

Solutions to Questions

1. $3(x + 5)$	2. $5(2x + 3)$
3. $9(2b + 5)$	4. $2(5x + 7)$
5. $4(3x - 5)$	6. $8(4c + 3)$
7. $12(x - 5)$	8. $3(7a + 8)$
9. $10(x + 11)$	10. $6(3d - 10)$
11. $2(8x + 5)$	12. $4(3x - 10)$