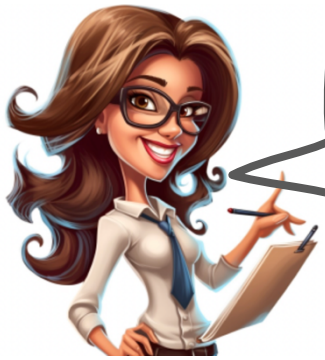
SUPER 12s



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

2 ALGEBRA
2.7 FACTORISING
2.7 LEVEL 1

NAME : _____

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

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

1. $3(x+5)$

2. $2(y-1)$

3. $6(a+1)$

4. $7(x-2)$

5. $9(b+2)$

6. $4(x-5)$

7.

$7(d-1)$

8.

$3(b+4)$

9.

$6(c-2)$

10.

$5(x+10)$

11.

$3(x-6)$

12.

$9(x-2)$

Solutions can be found at the end of the booklet.

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

STRATEGIES TO SOLVE THE PROBLEMS

Example 1

Factorise.

$$2x + 8$$

Step 1

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

$$2x + 8$$

Factors

1, 2 1, 2, 4, 8

Step 2

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

Highest common factor $= 2$

$$2x + 8$$

$$2(\quad\quad)$$

Step 3

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

$$2x + 8$$

$$\div 2$$

$$2(x + 4)$$

QUESTIONS

Factorise.

1. $5x + 20$

2. $3x + 15$

3. $6b + 18$

4. $10x + 30$

5. $12x - 48$

6. $2c + 24$

7.

$4x - 16$

8.

$7a + 35$

9.

$10x + 200$

10.

$8d - 40$

11.

$6x + 36$

12.

$2x - 50$

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. $3x + 15$	2. $2y - 2$
3. $6a + 6$	4. $7x - 14$
5. $9b + 18$	6. $4x - 20$
7. $7d - 7$	8. $3b + 12$
9. $6c - 12$	10. $5x + 50$
11. $3x - 18$	12. $9x - 18$

Solutions to Questions

1. $5(x + 4)$	2. $3(x + 5)$
3. $6(b + 3)$	4. $10(x + 3)$
5. $12(x - 4)$	6. $2(c + 12)$
7. $4(x - 4)$	8. $7(a + 5)$
9. $10(x + 20)$	10. $8(d - 5)$
11. $6(x + 6)$	12. $2(x - 25)$