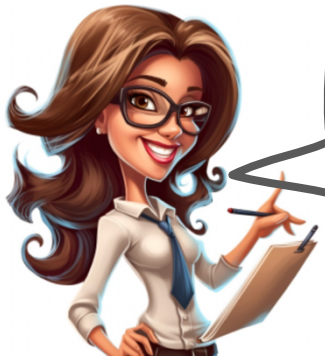
SUPER 12s



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

2 ALGEBRA
2.6 EXPANDING BRACKETS
2.6 LEVEL 2

NAME: _____

Skill description: Using the distributive law to expand brackets containing variables with coefficients.

Essential Revision

1. Evaluate.

$$-3 \times 7$$

2. Use the distributive law to expand.

$$p(q + 6)$$

3. Evaluate.

$$-4 \times -6$$

4. Use the distributive law to expand.

$$a(b - 3)$$

5. Evaluate.

$$2 \times -9$$

6. Use the distributive law to expand.

$$4(a + 8)$$

7. Evaluate.

$$-1 \times -5$$

8. Use the distributive law to expand.

$$5(x + 7)$$

9. Evaluate.

$$7 \times -11$$

10. Use the distributive law to expand.

$$3(x - 5)$$

11. Evaluate.

$$-9 \times -2$$

12. Use the distributive law to expand.

$$4(b + 5)$$

Solutions can be found at the end of the booklet.

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

STRATEGIES TO SOLVE THE PROBLEMS

Example 1

Use the distributive law to expand the following bracket.

$$3(2a + 6)$$

Step 1

Multiply the 3 and $2a$.

$$3(2a + 6) = 6a$$

Step 2

Multiply the 3 and 6. As the 3 and 6 are both positive, the resultant is $+18$.

$$3(2a + 6) = 6a + 18$$

Example 2

Use the distributive law to expand the following bracket.

$$3a(b-2c)$$

Step 1

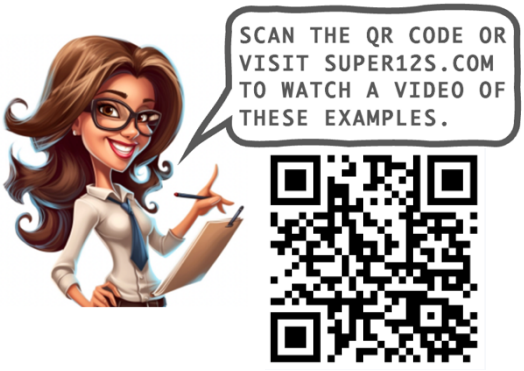
Multiply the $3a$ and b.

$$3a(b-2c) = 3ab$$

Step 2

Multiply the $3a$ and $-2c$. As the $3a$ is a positive term and the $-2c$ negative, the resultant is $-6ac$.

$$3a(b-2c) = 3ab - 6ac$$



QUESTIONS

Use the distributive law to expand the following brackets.

1. $2(3x + 4)$

2. $4(2y - 1)$

3. $4(3a + 7)$

4. $5(5 - 4x)$

5. $9(2b + 5)$

6. $7(2x - 3)$

7.

$2(p - 3d)$

8.

$3a(7b - d)$

9.

$2a(c - 3)$

10.

$p(4x + 12)$

11.

$10(3 - 4x)$

12.

$2y(x - 2z)$

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. -21	2. $pq + 6p$
3. 24	4. $ab - 3a$
5. -18	6. $4a + 32$
7. 5	8. $5x + 35$
9. -77	10. $3x - 15$
11. 18	12. $4b + 20$

Solutions to Questions

1. $6x + 8$	2. $8y - 4$
3. $12a + 28$	4. $25 - 20x$
5. $18b + 45$	6. $14x - 21$
7. $2p - 6d$	8. $21ab - 3ad$
9. $2ac - 6a$	10. $4px + 12p$
11. $30 - 40x$	12. $2xy - 4yz$