SUPER 12s

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

2 ALGEBRA
2.1 CONVENTIONS
2.1 LEVEL 4

NAME: _____

Skill description: Writing algebraic expressions from worded descriptions.

Essential Revision

1. Identify the terms.

$$-5x + 1 = -4$$

2. Rewrite using correct algebraic conventions.

$$y^1$$

3. Rewrite using correct algebraic conventions.

$$9 \times x$$

4. Rewrite using correct algebraic conventions.

$$b + 0$$

5. Identify the variable.

$$3 - x = 1$$

6. Rewrite using correct algebraic conventions.

$$3 \div y$$

7. Identify the expression.

$$2c + 2 = 12$$

8. Rewrite using correct algebraic conventions.

$$c \times c \times c \times c \times c$$

9. Rewrite using correct algebraic conventions.

$$d \times c$$

10. Rewrite using correct algebraic conventions.

$$x^1 - 0$$

11. Identify the terms.

$$3x - 1 = 14$$

12. Rewrite using correct algebraic conventions.

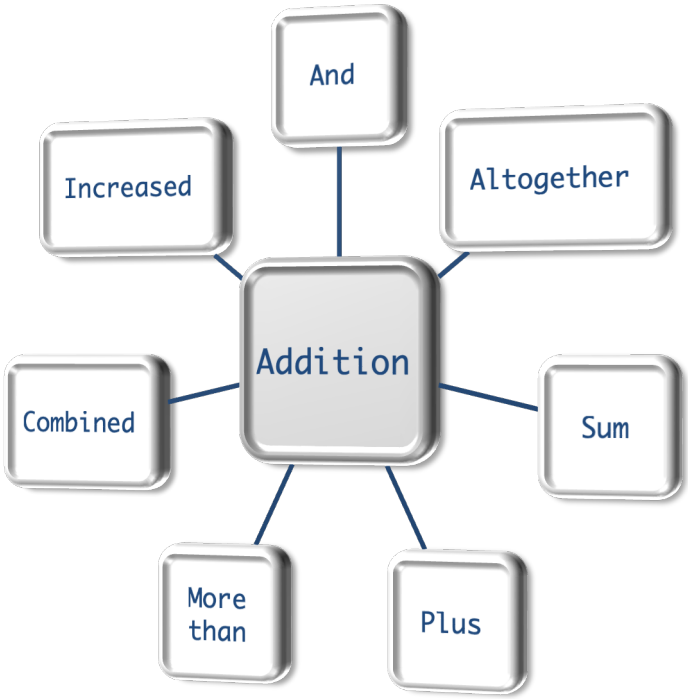
$$3 \div 2b$$

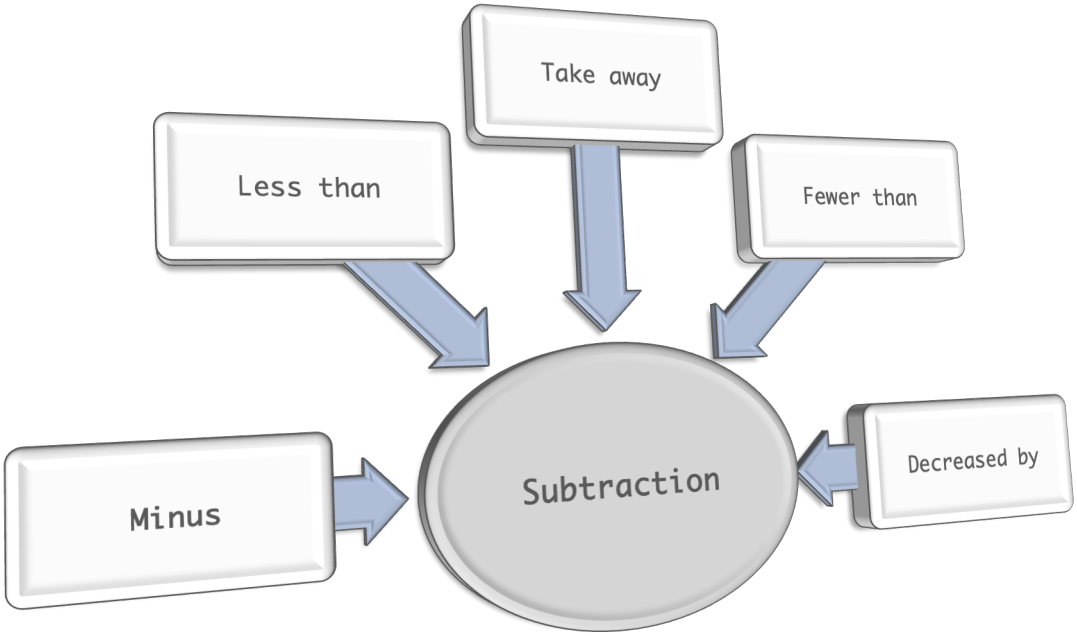
Solutions can be found at the end of the booklet.

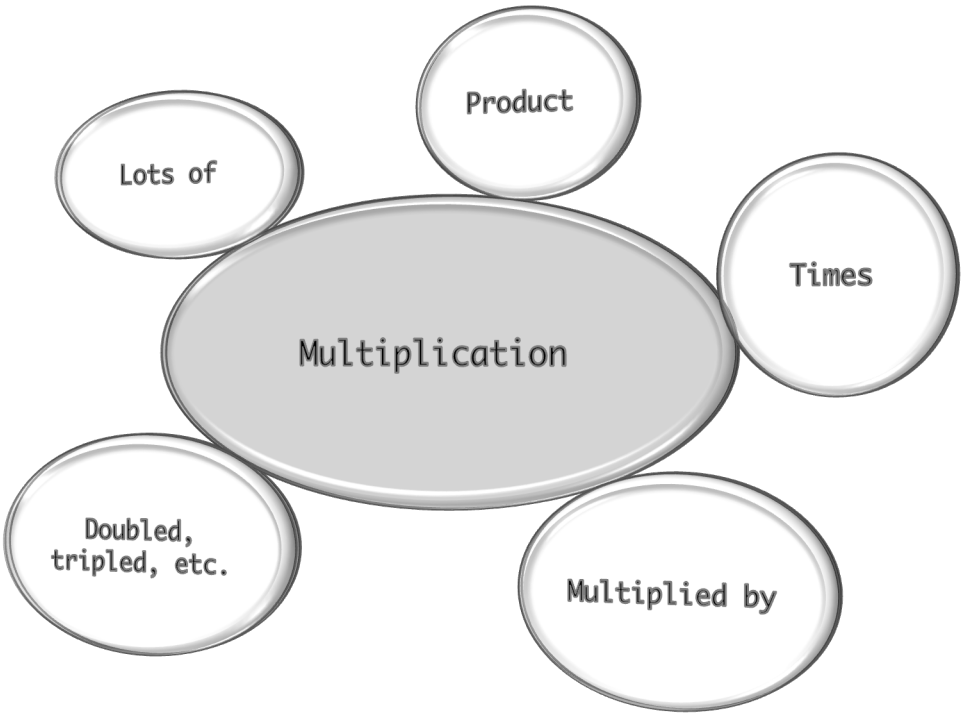
score $\frac{\quad}{12}$

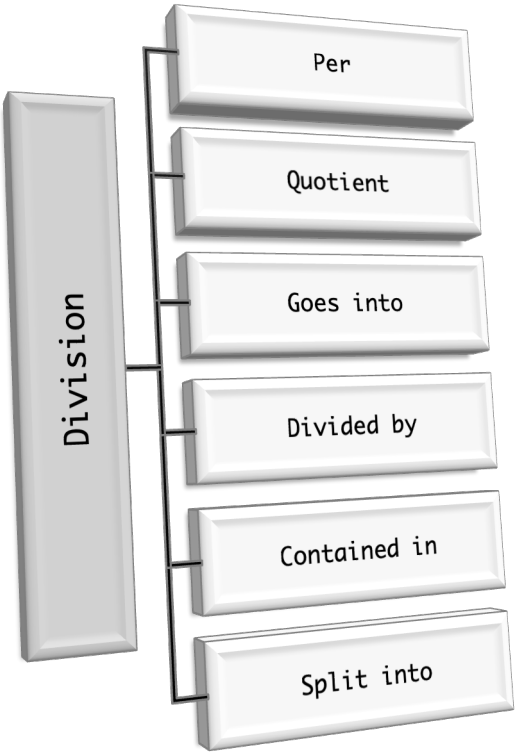
STRATEGIES TO SOLVE THE PROBLEMS

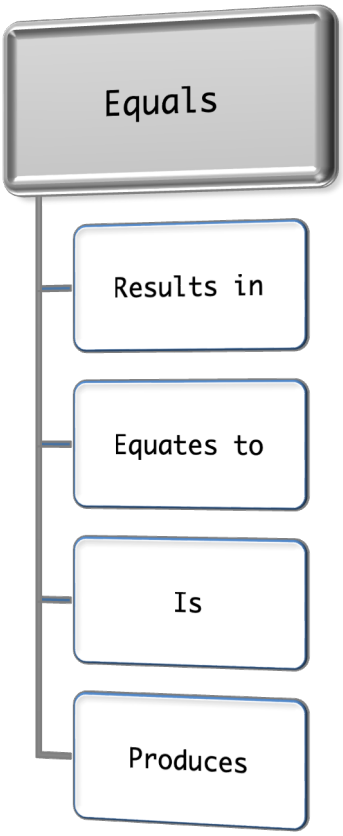
Look for the keywords that describe the operations.











Example 1

Write an algebraic expression for:

The sum of 3 and y.

Solution

'Sum' means add.

$$3 + y$$

$y + 3$ is also correct.

Example 2

Write an algebraic expression for:

4 more than x.

Solution

'More than' indicates addition.

$x + 4$ is correct and best describes the phrase; however,

$4 + x$ is also correct.

Example 3

Write an algebraic expression for:

6 less than y.

Solution

'Less than' implies you need to subtract.

You need to start with the variable y and subtract 6 from it.

$y - 6$ is correct.

$6 - y$ is incorrect, as this indicates y less than 6 , which is not what the question asks.

Example 4

Write an algebraic term for:

The product of g and 3.

Solution

'Product' signals the need to multiply.

Remember from Level 3 that the number is placed before the variable.

$3g$ is correct.

Example 5

Write an algebraic term for:

x divided by 7.

Solution

This is a division, so the answer is written as a fraction.

$\frac{x}{7}$ is correct.

Example 6

Write an algebraic term for:

x raised to the power 6.

Solution

'Raised to the power' indicates using indices.

x^6 is correct.

QUESTIONS

Write an algebraic term or expression for:

1. Divide 7 by c.

2. Multiply x by 3.

3. x minus 11.

4. The product of 7 and g.

5. x raised to the 3^{rd} power.

6. The sum of 3 and y.

7. Subtract 3 from x.

8. 7 more than x.

9. 11 divided by x.

10. The product of x and 7.

11. 4 less than x.

12. y raised to the 4^{th} power.

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. $-5x,\ 1,\ -4$	2. y
3. $9x$	4. b
5. x	6. $\frac{3}{y}$
7. $2c + 2$	8. c^5
9. cd	10. x
11. $3x,\ -1,\ 14$	12. $\frac{3}{2b}$

Solutions to Questions

1. $\frac{7}{c}$	2. $3x$
3. $x - 11$	4. $7g$
5. x^3	6. $3 + y$
7. $x - 3$	8. $x + 7$
9. $\frac{11}{x}$	10. $7x$
11. $x - 4$	12. y^4