

SUPER 12s



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

2 ALGEBRA
2.2 WRITING EQUATIONS
2.2 LEVEL 3

NAME : _____

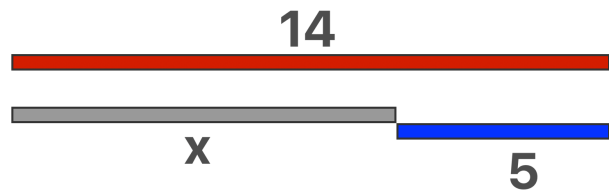
Skill description: Writing algebraic equations from word problems that involve one operation.

Essential Revision

1. Solve the following.

$$x + 2 = 17$$

2. Write an equation that represents the unknown, then solve.

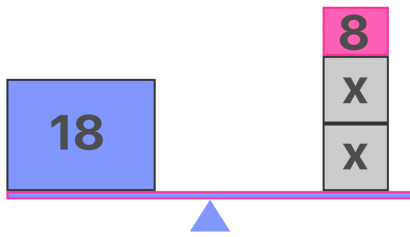


3. When an unknown number x is increased by nineteen the total is twenty-nine. Write an equation, that includes addition, and then determine the unknown number.

4. Solve the following.

$$x - 4 = 2$$

5. Write an equation that represents the unknown, then solve.



6. Twenty-two more than an unknown number is forty-eight. Write an equation, that includes addition, and then determine the unknown number. Let x represent the unknown number.

7. Solve the following.

$$2x + 1 = 17$$

8. Write an equation that represents the unknown, then solve.

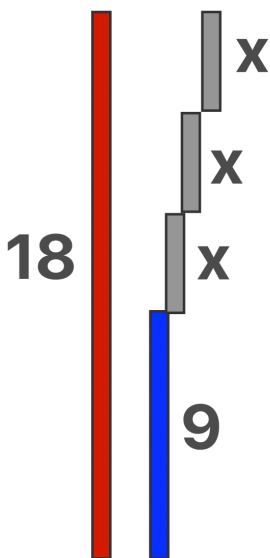
$$15 + X = 31$$

9. The combination of an unknown number p and eleven totals forty-three. Write an equation, that includes addition, and then determine the unknown number.

10. Solve the following.

$$\frac{x}{4} = 5$$

11. Write an equation that represents the unknown, then solve.



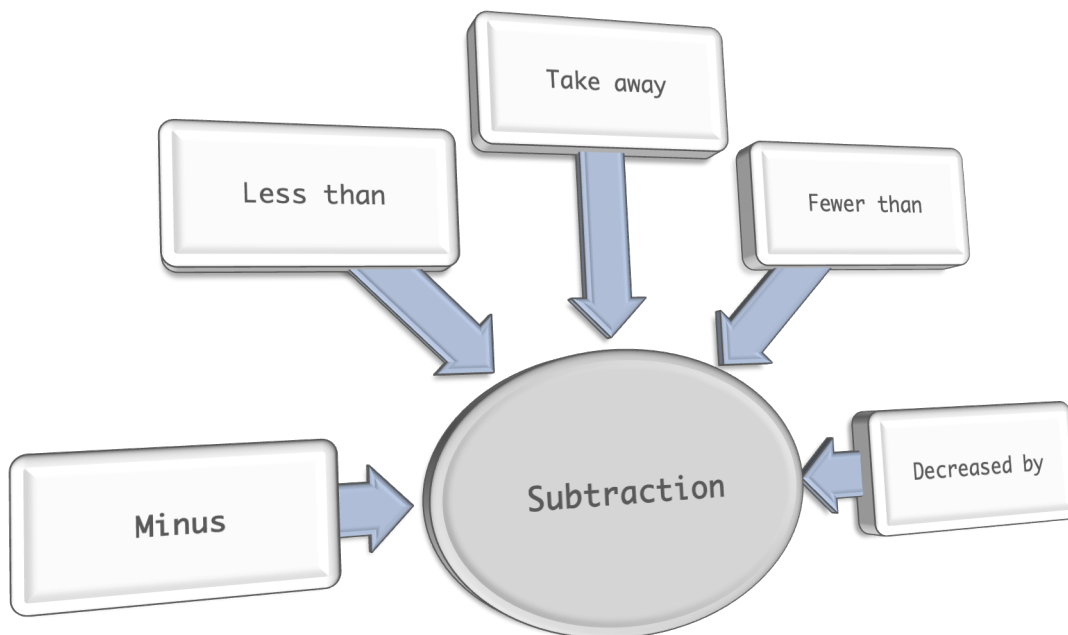
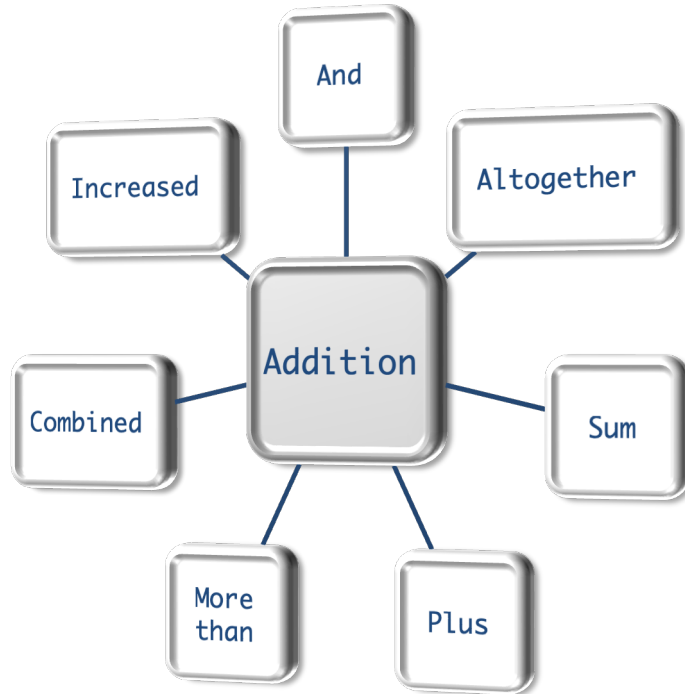
12. When an unknown number t is increased by fourteen the result is sixty-two. Write an equation, that includes addition, and then determine the value of t .

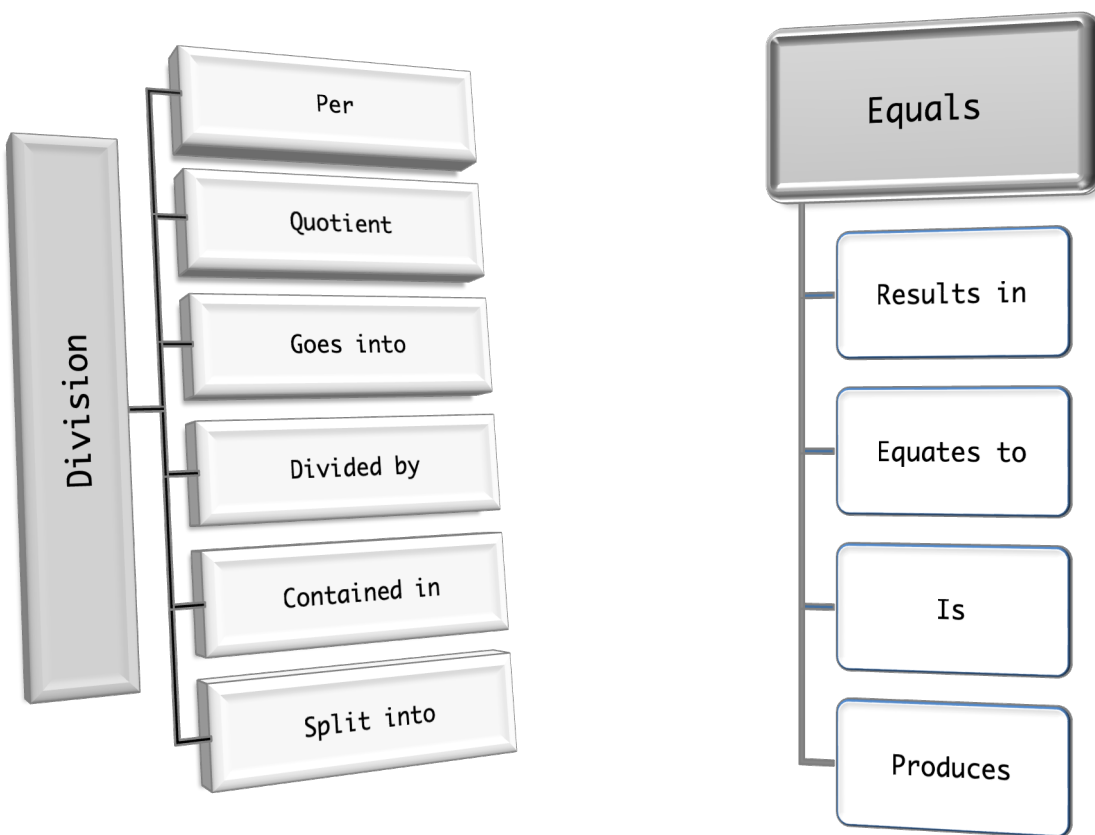
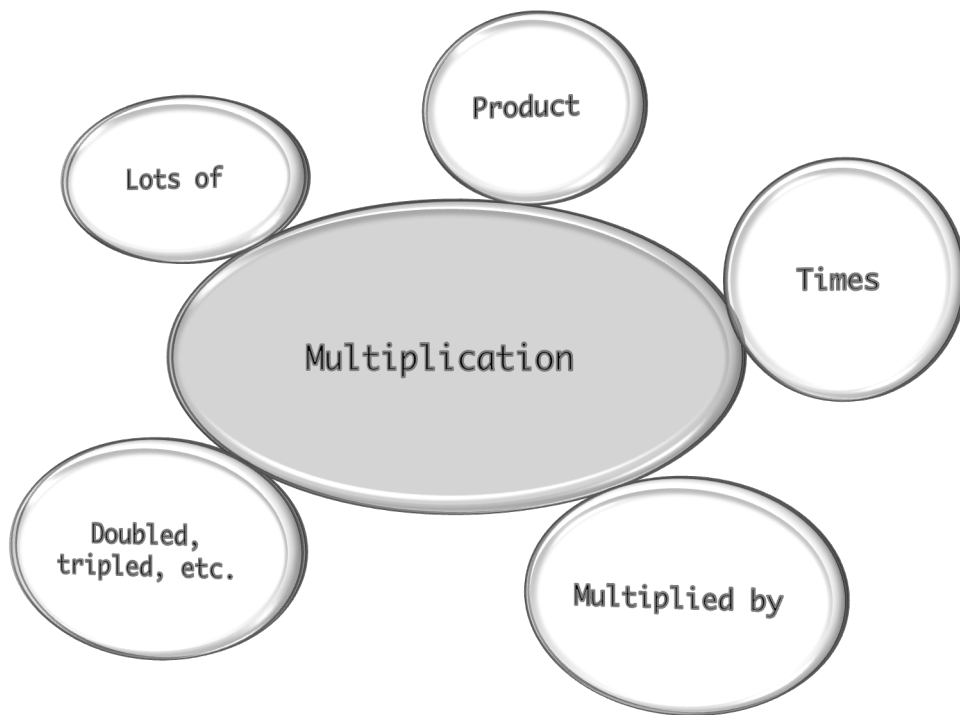
Solutions can be found at the end of the booklet.

score
12

STRATEGIES TO SOLVE THE PROBLEMS

Look for the keywords that describe the operations.





Example 1

Write an equation, then solve it. A number g is multiplied by three, and the result is fifty-four.

Step 1

Identify the unknown.

A number g

g

Step 2

Look for the keyword that describes the operation.

multiplied by three

$3g$

Step 3

Look for equality.

result is fifty-four.

$$3g = 54$$

Step 4

Solve.

$$g = 18$$

Example 2

Write an equation, then solve it. Three fewer than a number m is twenty-eight.

Step 1

Identify the unknown.

a number m

m

Step 2

Look for the keyword that describes the operation.

Three fewer than

$m - 3$

Step 3

Look for equality.

is twenty-eight.

$m - 3 = 28$

Step 4

Solve.

$m = 31$



QUESTIONS

Write an equation, then solve it.

1. A number x has eleven added to it and the result is thirty-two.

2. A number y is multiplied by seven and the result is one hundred and five.

3. A number b is reduced by eighteen and the result is forty-three.

4. A number c is divided by six and the result is nine.

5. A number d is increased by three and the result is twelve.

6. The number x is smaller than twenty-three. The difference between twenty-three and the number x is seven.

7. The product of a number c and five is one hundred and fifteen.

8. A number x is split evenly into four parts and each part equates to thirty-two.

9. The sum of a number t and fifteen equates to sixty-one.

10. Seven fewer than a number x is nineteen.

11. Tripling the number f equals two hundred and forty.

12. Halving a number x equates to forty-eight.



SOLUTIONS CAN BE FOUND AT
THE END OF THE BOOKLET.

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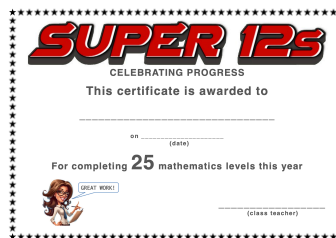
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MASTERY TEST

Teacher's signature

I'VE COMPLETED

LEVELS THIS YEAR



Solutions to Essential Revision

1. $x = 15$

2. $x + 5 = 14$

$x = 9$

3. $x + 19 = 29$

4. $x = 6$

$x = 10$

5. $2x + 8 = 18$

6. $x + 22 = 48$

$x = 5$

$x = 26$

7. $x = 8$

8. $x + 15 = 31$

$x = 16$

9. $p + 11 = 43$

10. $x = 20$

$p = 32$

11. $3x + 9 = 18$

12. $t + 14 = 62$

$x = 3$

$t = 48$

Solutions to Questions

1. $x + 11 = 32$

2. $7y = 105$

$x = 21$

$y = 15$

3. $b - 18 = 43$

4. $\frac{c}{6} = 9$

$b = 61$

$c = 54$

5. $d + 3 = 12$

6. $23 - x = 7$

$d = 9$

$x = 16$

7. $5c = 115$

8. $\frac{x}{4} = 32$

$c = 23$

$x = 128$

9. $t + 15 = 61$

10. $x - 7 = 19$

$t = 46$

$x = 26$

11. $3f = 240$

12. $\frac{x}{2} = 48$

$f = 80$

$x = 96$