SUPER 12s

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

2 ALGEBRA
2.2 WRITING EQUATIONS
2.2 LEVEL 1

NAME: _____

Skill description: Writing algebraic equations represented by diagrams.

Essential Revision: Solve the following.

1. $x + 4 = 9$

2. $2x = 18$

3. $x - 7 = 12$

4. $5x = 60$

5. $2x + 1 = 11$

6. $\frac{x}{5} = 6$

7.

$x + 8 = 15$

8.

$3x = 21$

9.

$x - 9 = 16$

10.

$7x = 140$

11.

$3x + 2 = 32$

12.

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

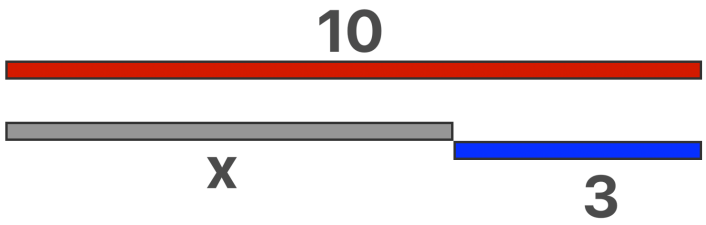
Solutions can be found at the end of the booklet.

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

STRATEGIES TO SOLVE THE PROBLEMS

Example 1

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



Step 1

The addition of length x and 3 is equal to 10. We can, therefore, write an equation.

$$x + 3 = 10$$

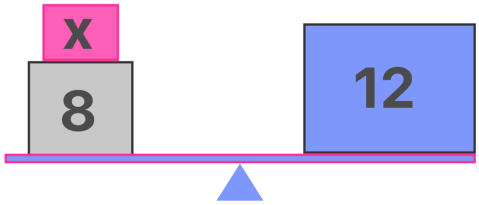
Step 2

Solve (See Solving Equations levels on strategies to solve equations).

$$x = 7$$

Example 2

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



Step 1

As the scales are balanced, the addition of mass x and 8 is equal to 12. We can, therefore, write an equation.

$$x + 8 = 12$$

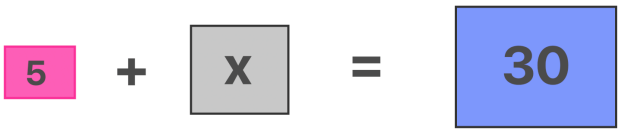
Step 2

Solve (See Solving Equations levels on strategies to solve equations).

$$x = 4$$

Example 3

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



Step 1

The addition of the value x and 5 is equal to 30. We can, therefore, write an equation.

$$x + 5 = 30$$

Step 2

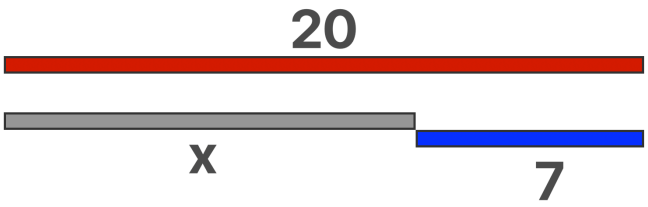
Solve (See Solving Equations levels on strategies to solve equations).

$$x = 25$$

QUESTIONS

Write an equation that represents the unknown, then solve.

1.



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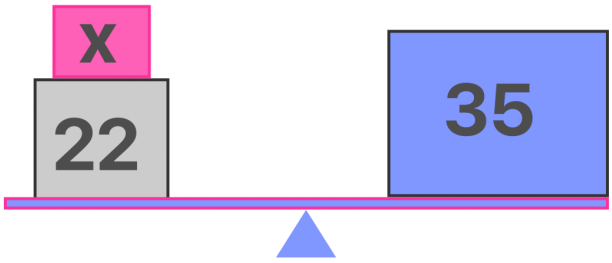

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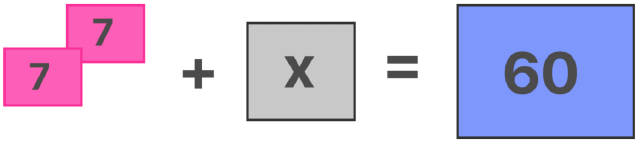

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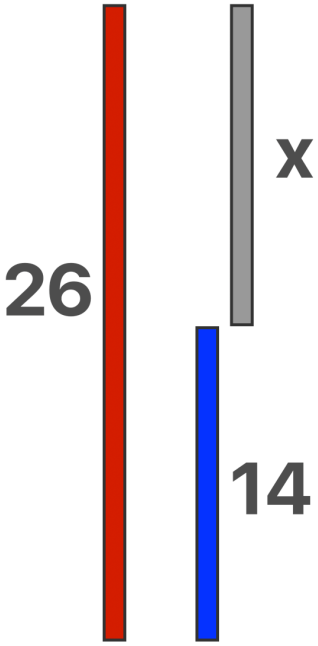

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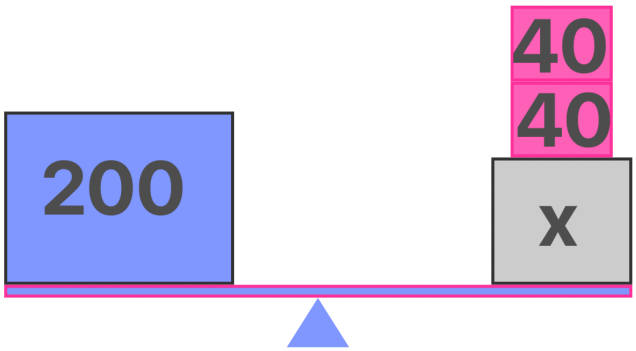

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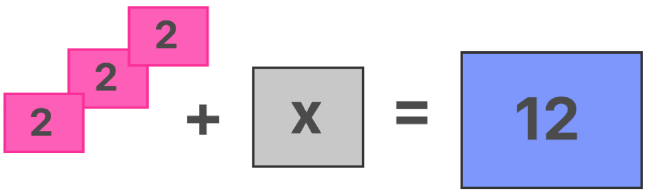

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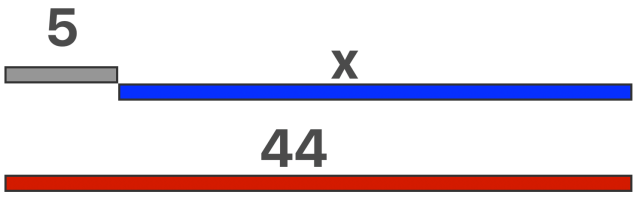

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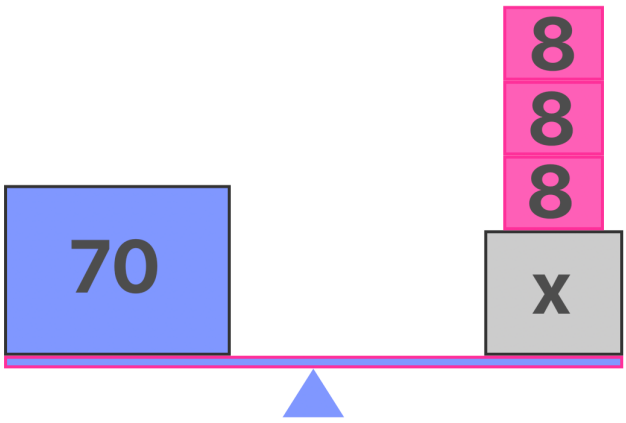

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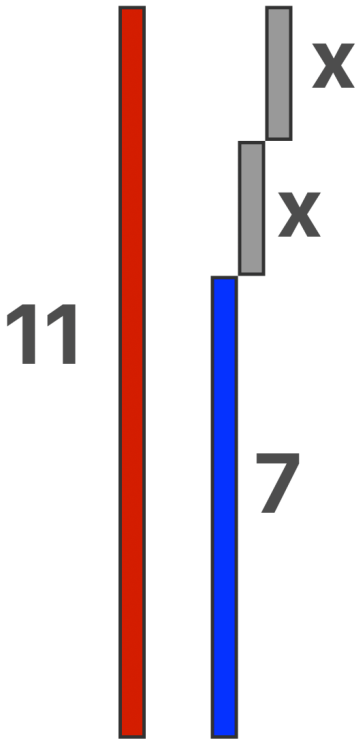

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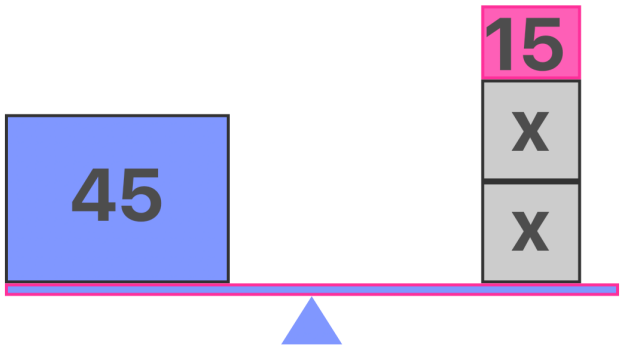

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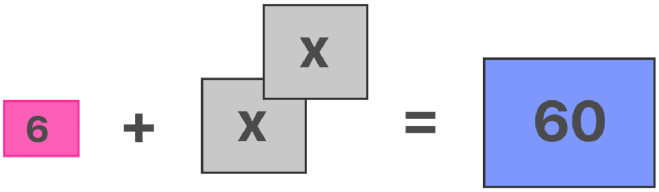
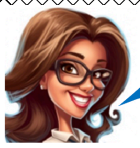




SOLUTIONS CAN BE FOUND AT THE END OF THE BOOKLET.

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

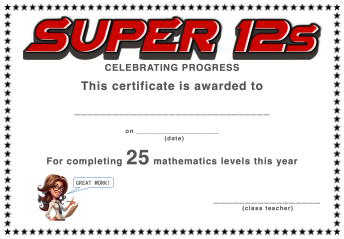
MASTERY TEST

Teacher's signature

I'VE COMPLETED

_____

LEVELS THIS YEAR



Solutions to Essential Revision

1. $x = 5$	2. $x = 9$
3. $x = 19$	4. $x = 12$
5. $x = 5$	6. $x = 30$
7. $x = 7$	8. $x = 7$
9. $x = 25$	10. $x = 20$
11. $x = 10$	12. $x = 32$

Solutions to Questions

1. $x + 7 = 20$ $x = 13$	2. $x + 22 = 35$ $x = 13$
3. $x + 14 = 60$ $x = 46$	4. $x + 14 = 26$ $x = 12$
5. $x + 80 = 200$ $x = 120$	6. $x + 6 = 12$ $x = 6$
7. $x + 5 = 44$ $x = 39$	8. $x + 24 = 70$ $x = 46$
9. $x + 8 = 34$ $x = 26$	10. $2x + 7 = 11$ $x = 2$
11. $2x + 15 = 45$ $x = 15$	12. $2x + 6 = 60$ $x = 27$