Solving Linear Equations

GCSE Maths · Foundation tier · Grades 3–5 · About 20 minutes · 8 questions

Name _____ Date _____ Score / 8

WHAT YOU WILL PRACTISE

- Solve one-step and two-step equations
- Solve equations that contain brackets
- Solve equations with the unknown on both sides

WORKED EXAMPLE

Solve $4x - 7 = 2x + 9$.

1. Subtract $2x$ from both sides: $2x - 7 = 9$.
2. Add 7 to both sides: $2x = 16$.
3. Divide both sides by 2: $x = 8$.
4. Check: $4 \times 8 - 7 = 25$ and $2 \times 8 + 9 = 25$.

Answer: $x = 8$

Questions

Show your working in the space under each question.

1. Solve $x + 7 = 15$

2. Solve $3x = 27$

3. Solve $2x + 5 = 17$

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4. Solve $5x - 8 = 22$

5. Solve $x/4 + 3 = 9$

6. Solve $3(x + 4) = 27$

7. Solve $7x - 3 = 4x + 12$

8. Solve $5(2x - 3) = 2(x + 4) + 9$

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Answers: Solving Linear Equations

Mark your own work, then go back to any question you got wrong before reading the tutor tip.

Q	QUESTION	ANSWER
1	Solve x + 7 = 15	**x = 8**
2	Solve 3x = 27	**x = 9**
3	Solve 2x + 5 = 17	**x = 6**
4	Solve 5x − 8 = 22	**x = 6**
5	Solve x/4 + 3 = 9	**x = 24**
6	Solve 3(x + 4) = 27	**x = 5**
7	Solve 7x − 3 = 4x + 12	**x = 5**
8	Solve 5(2x − 3) = 2(x + 4) + 9	**x = 4**

TUTOR TIP

Write one operation per line and do the same thing to both sides. Most lost marks come from two steps squeezed into one line.

Stuck on a question? Work through it live with a tutor.

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