Solving Linear Equations

IGCSE Maths · Grades 9–10 · British and American curriculum · 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.

YFCampus offers one-to-one online Maths tutoring matched to your school curriculum. Book a free trial class at **www.yfcampus.com/qa**

Written for students aged 13 to 16 and suitable for Grades 9–10. Check your school's curriculum for the exact order of topics. YFCampus is independent and is not affiliated with any exam board or education ministry.