

Solving Linear Equations: math test solutions, Grade 9 – download the PDF

Test solutions with the detailed point scale. Add up your points and spot what to review.

Suggested time: 45 minutes. Out of 20 points. Calculator allowed only when the problem says so.

1 Expressions and order of operations

/ 3 pts

- a. $9 + 14 = 23$. (1 pt)
- b. $5 + 3 \cdot 5^2 = 5 + 75 = 80$. (1 pt)
- c. $2 \cdot 9 - 12 = 6$. (1 pt)

2 One-step and two-step equations

/ 3 pts

- a. $x = 21$. (1 pt)
- b. $y = -9$. (1 pt)
- c. $5k = -25$, so $k = -5$. (1 pt)

3 Multi-step equations

/ 4 pts

a. $8x - 12 + 5 = 33$, so $8x - 7 = 33$, $8x = 40$ and $x = 5$. (2 pts)

b. $7x - 2x + 8 = 23$, so $5x = 15$ and $x = 3$. (2 pts)

4 Variables on both sides

/ 4 pts

a. $4x = 16$, so $x = 4$. (2 pts)

b. $3x + 12 = 5x - 2$, so $14 = 2x$ and $x = 7$. (2 pts)

5 Ride-share fare

/ 3 pts

Equation: $2m + 3 = 21$. (1 pt)

Subtract 3: $2m = 18$. (1 pt)

The ride was $m = 9$ miles long. Check: $2 \cdot 9 + 3 = 21$. (1 pt)

6 Formulas and special cases

/ 3 pts

a. $h = \frac{2A}{b}$. (1 pt)

b. $h = \frac{60}{12} = 5$. (1 pt)

c. Subtracting $4x$ gives $-1 = 3$, false: no solution. (1 pt)



Test yourself: quick challenge for Grade 9

Change level

Level : Grade 9

6 random questions, instant feedback.

 **Start the challenge**

 Keep exploring with Zyro

 Math tests

Solving Linear Equations: math test,
Grade 9

 Math lessons

Solving Linear Equations: math lesson,
Grade 9

 Math quizzes

Solving Linear Equations: math quiz,
Grade 9

 Math tests

Linear Inequalities: math test, Grade 9



Math tests

Relations and Functions: math test,
Grade 9



Math lessons

Linear Inequalities: math lesson, Grade 9

Zyro takes you to our partner sites

Blast off to other planets of knowledge and their apps.

Lift off