

Grade 7 - Solving Two-Step Equations - Test

Common Core 7.EE.B.4a · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

This 45-minute test checks solving two-step equations of the forms $px + q = r$ and $p(x + q) = r$ with rational numbers, and comparing arithmetic and algebraic solutions (Common Core 7.EE.B.4a). It has 9 questions worth 20 points in all. Show your work, because most questions give partial credit for correct steps.

About this test

- Grade: Grade 7
- Chapter: Solving Two-Step Equations
- Standards: 7.EE.B.4a
- Time: 45 minutes
- Total: 20 points

Question 1 - Two-step [2 pts]

Solve $6x - 9 = 33$. Show each step.

Question 2 - Parentheses [2 pts]

Solve $-4(x + 5) = -28$. Show each step.

Question 3 - Fractions [2 pts]

Solve $\frac{3}{4}x + \frac{1}{2} = \frac{11}{2}$. Show each step.

Question 4 - Decimals [2 pts]

Solve $1.5x - 2.4 = 6.6$. Show each step.

Question 5 - Write and solve [2 pts]

total \$46	\$46		
Cost	\$12 fee	t	t

A fee plus two tickets.

Priya pays a \$12 fee plus the price t of each of 2 concert tickets, and the total is \$46. Write an equation and solve for t .

Question 6 - Two methods [2 pts]

The sum of 5 and 3 times a number is 26. (a) Find the number with arithmetic only. (b) Write and solve an equation.

Question 7 - Find the error [2 pts]

Liam solved $3(x-2)=12$ like this: $x-2=12$, so $x=14$. Explain his mistake and find the correct solution.

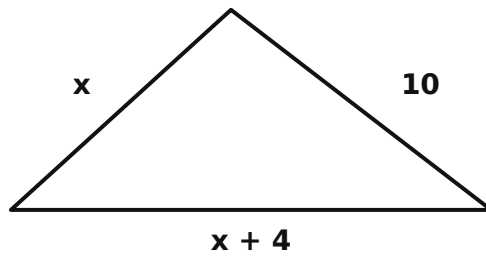
Question 8 - Kayak rental [3 pts]

Hours h	Cost
0	\$25
2	\$55
4	\$85

Kayak rental.

- Find the cost per hour and the starting fee. (1 point)
- Write an equation for the cost C after h hours. (1 point)
- Find the number of hours for a cost of \$205. (1 point)

Question 9 - Triangle [3 pts]



A triangle with perimeter 38 inches.

- Write an equation for the perimeter. (1 point)
- Solve it for x . (1 point)
- Find the length of the longest side. (1 point)