



Solving $x + p = q$

GRADE 6 MATH

Name _____

Date _____

Work through the sheet in order. Show the operation you did to BOTH sides, then check by substituting; final answers go in the boxes. One skill: **solving $x + p = q$** .

WORKED EXAMPLE

Undo addition with **subtraction**, applied to **both sides**. $x + 18 = 45 \rightarrow x = 45 - 18 = 27$.
Check: $27 + 18 = 45$ ✓ If your check fails, you almost certainly added instead of subtracting.

1. Solve $x + 4 = 11$.

FLUENCY

Show your thinking

Answer

2. Solve $x + 9 = 23$.

FLUENCY

Show your thinking

Answer

3. Solve $x + 13 = 13$.

FLUENCY

Show your thinking

Answer

4. Solve $x + \frac{1}{4} = \frac{3}{4}$.

APPLICATION

Show your thinking

Answer

5. Solve $x + 6.5 = 10$.

APPLICATION

Show your thinking

Answer

6. Solve $x + 18 = 45$ and check your answer.

APPLICATION

Show your thinking

Answer

7. Ana has saved \$34 and needs \$80 for a bike. Write an equation for the amount x she still needs, then solve it.

REASONING

Show your thinking

Answer

8. Nico solves $x + 2 = 9$ and gets $x = 11$. Check his answer by substituting, explain his error, and give the correct solution.

REASONING

Show your thinking

Answer

9. Solve $x + 0 = 17$. Explain what this equation tells you about adding zero.

REASONING

Show your thinking

Answer