

Solve 1-step equations: addition and subtraction

Name: _____ Date: _____

Key idea

Use the inverse operation to undo what has happened to the letter.

If $x + 8 = 20$, subtract 8 from 20. $x = 12$

A. Choose the inverse operation

- | | | | | |
|--------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| 1) inverse of + 14 | <input type="checkbox"/> + 14 | <input type="checkbox"/> - 14 | <input type="checkbox"/> x 14 | <input type="checkbox"/> ÷ 14 |
| 2) inverse of - 23 | <input type="checkbox"/> + 23 | <input type="checkbox"/> - 23 | <input type="checkbox"/> x 23 | <input type="checkbox"/> ÷ 23 |
| 3) inverse of + 7 | <input type="checkbox"/> + 7 | <input type="checkbox"/> - 7 | <input type="checkbox"/> x 7 | <input type="checkbox"/> ÷ 7 |
| 4) inverse of - 40 | <input type="checkbox"/> + 40 | <input type="checkbox"/> - 40 | <input type="checkbox"/> x 40 | <input type="checkbox"/> ÷ 40 |

B. Solve each equation

5) $a + 14 = 31$

a =

6) $b + 23 = 57$

b =

7) $d + 19 = 49$

d =

8) $k + 24 = 59$

k =

9) $t + 43 = 83$

t =

10) $n + 134 = 279$

n =

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C. Subtraction equations

11) $c - 23 = 45$

$c =$

12) $d - 37 = 24$

$d =$

13) $p - 19 = 38$

$p =$

14) $y - 234 = 345$

$y =$

15) $a - 400 = 400$

$a =$

16) $g - 3000 = 200$

$g =$

D. Equations written in a different order

17) $17 + p = 35$

$p =$

18) $471 = r + 243$

$r =$

19) $381 = 7 + e$

$e =$

20) $54 + m = 89$

$m =$

21) $208 = h - 101$

$h =$

22) $193 = x + 27$

$x =$

Explain, match and check

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E. Same and different

23) Compare: $a + 34 = 78$ and $a - 34 = 78$

What is the same?

What is different?

F. Match the equation to the solution

24) $65 = x - 13$ _____ $x = 78$

25) $x - 13 = 39$ _____ $x = 52$

26) $13 + x = 39$ _____ $x = 26$

G. Spot the mistake

Max says: To solve $h + 2.7 = 7.8$, I need to work out $7.8 + 2.7$

27) Why is Max wrong?

28) Solve: $h + 2.7 = 7.8$

$h =$

H. Check your answer

Choose one answer from the worksheet and substitute it back into the equation.