

Lesson 112 ALGEBRA

Finding the missing number ($\square + 5 = 12$)

WHAT THIS LESSON TEACHES

A box in a number sentence stands for a number we do not know yet. To find it, do the opposite of the number beside the box, then check by putting your answer back in.

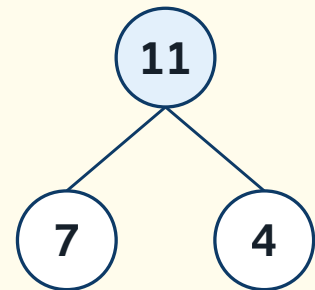
→ In $\text{box} + 5 = 12$, take 5 from 12: $12 - 5 = 7$, so the box holds 7.

→ Check: $7 + 5 = 12$ is true, so 7 is correct.

MODEL THIS ON THE BOARD

FINDING THE MISSING NUMBER

- ① The box has 4 added to it and the total is 11.
- ② Do the opposite: take 4 away from 11.
- ③ $11 - 4 = 7$, so the box holds 7.
- ④ Check: $7 + 4 = 11$. That is true.



DISCUSSION STARTER

REFLECT Does thinking of equals as balance change how you read a number sentence?

ANSWER KEY

a) 8, 8, 8, 13, 4, 8

Q1: 9

a) Never — The lesson teaches that equals means both sides are worth the same amount, not that an answer follows.

b) Always — Lesson shows both are true because each side is worth 7.

c) Never — Lesson and practice place the missing number on the right or in either pan.

d) Always — Both sides must be worth 12, so the box holds 7 to balance.

EXTENSION SHEET · STRETCH ANSWERS

S1: $x = 24$

S2: $x = 312$

S3: $x = 26$

S4: $x = 15$

S5: $x = 23$