

Equality and the balance

WHAT THIS LESSON TEACHES

An **equation** is like a pair of scales — both sides must stay equal. Whatever you do to one side (add, subtract, multiply, divide) you must do to the **other side** too.

→ $x + 4 = 9$. Subtract 4 from both sides: $x = 5$.

→ $3x = 24$. Divide both sides by 3: $x = 8$.

ANSWER KEY

a) $x = 5$.

b) $x = 5$.

c) $a = 11$.

d) False — if you change one side without changing the other, the beam tips.

Q1: $x = 9$

Q2: $x = 12$

Q3: $x = 22$

Q4: $x = 19$

EXTENSION SHEET · STRETCH ANSWERS

S1: $x = 26$

S2: $x = 10$

S3: $x = 15$