

# 2 Equations and sequences – Part 2

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Vocabulary

Write each word three times.

| English           | Write it 3 times (English) |
|-------------------|----------------------------|
| equation          | _____                      |
| sequence          | _____                      |
| term-to-term rule | _____                      |

## Recall

An **equation** has an equals sign. Solving it means finding the value of the letter.

## New ideas

Read these first, then do the Practice.

### ■ 1 Solving an equation

Do the **same** to both sides to keep it balanced, until the letter is alone:

$2x + 3 = 11$ 

(start)

$2x = 8$ 

subtract 3 from both sides

$x = 4$ 

divide both sides by 2

### ■ 2 Sequences

A **sequence** is a list of numbers with a rule. The **term-to-term rule** tells you how to get the next term:



**Watch out:** when solving, do the **same** to *both* sides at each step (subtract first, then divide) to keep the equation balanced. A sequence’s **term-to-term rule** says how to get from one term to the *next*.

## Practice

Try these in order.

**2.6** Solve  $x + 5 = 12$ . [1]

**2.7** Solve  $3x = 21$ . [1]

**2.8** Solve  $2x + 1 = 9$ . [2]

**2.9** Write down the next two terms of 2, 5, 8, 11, ... [2]

**2.10** What is the term-to-term rule for 20, 17, 14, 11, ...? [1]

**2.11 Challenge.** Solve  $3x - 4 = 11$ . [2]