

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:

$$2x + 3 = 11 \quad \text{(start)}$$

$$2x = 8 \quad \text{subtract 3 from both sides}$$

$$x = 4 \quad \text{divide both sides by 2}$$

■ 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]