

Arithmetics

Syllabus tracker [Open it online](#)

Name: _____

Date: _____

Tick one circle for each statement — on screen (click) or with a pen. Then try the quick checks: write your answer in the box, check it against the answers at the end, and tick “right” when you got it. ★ = IGCSE Extended tier only.

Types of number

Primes, squares, cubes, factors, multiples, rational and irrational numbers, reciprocals.

	Don't know	Shaky	Got it
I can recognise primes, squares, cubes, factors and multiples.	☐	☐	☐
I can tell rational numbers from irrational numbers.	☐	☐	☐
I can find the reciprocal of a number.	☐	☐	☐

Order of operations and negatives

BIDMAS, brackets and negative numbers, including in real situations.

	Don't know	Shaky	Got it
I can use the order of operations, including brackets and negative numbers.	☐	☐	☐
I can calculate with negative numbers in real situations.	☐	☐	☐

Fractions and decimals

The four operations with fractions, mixed numbers and decimals; ordering quantities.

	Don't know	Shaky	Got it
I can add, subtract, multiply and divide fractions and mixed numbers.	☐	☐	☐
I can multiply and divide decimals without a calculator.	☐	☐	☐
I can order fractions, decimals and percentages.	☐	☐	☐

Halfway values and differences

The number halfway between two values and the difference between them.

	Don't know	Shaky	Got it
I can find the number halfway between two numbers.	☐	☐	☐
I can find the difference between two values, including negatives.	☐	☐	☐

Recurring decimals ★

Converting recurring decimals to fractions.

	Don't know	Shaky	Got it
I can convert a one-digit recurring decimal to a fraction. ★	☐	☐	☐
I can convert a longer recurring decimal to a fraction in its simplest form. ★	☐	☐	☐

Quick checks

One quick question per statement. Answer in the box, then check the answers at the end.

1. Which of these is a prime number?

A 21 **B** 27 **C** 29 **D** 33

Answer: _____

☐ I got it right

2. Which of these is irrational?

A $\sqrt{16}$ **B** 0.333... **C** $\sqrt{7}$ **D** $\frac{22}{7}$

Answer: _____

☐ I got it right

3. What is the reciprocal of $\frac{2}{5}$? Give it as a decimal.

Answer: _____

☐ I got it right

4. Work out $3 + 4 \times (6 - 8)$.

Answer: _____

☐ I got it right

5. The temperature is -7°C at night and 5°C at noon. By how many degrees did it rise?

Answer: _____

☐ I got it right

6. Work out $1\frac{2}{3} \div \frac{5}{6}$.

Answer: _____

☐ I got it right

7. Work out 0.3×0.04 .

Answer: _____

☐ I got it right

8. Which is the largest?

A $\frac{3}{5}$ **B** 0.58 **C** 62% **D** 0.6

Answer: _____

☐ I got it right

9. What number is halfway between -3.4 and 7.2 ?

Answer: _____

☐ I got it right

10. Find the difference between -12 and 9 .

Answer: _____

☐ I got it right

11. Write $0.444\ldots$ as a fraction.

Answer: _____

☐ I got it right

12. Write $0.272727\ldots$ as a fraction in its simplest form.

Answer: _____

☐ I got it right

Answers

Try every question first, then check.

1. C: 29

2. C: $\sqrt{7}$

3. 2.5

4. -5

5. 12

6. 2

7. 0.012

8. C: 62%

9. 1.9

10. 21

11. $\frac{4}{9}$

12. $\frac{3}{11}$