

End-of-year maths quiz for IGCSE and GCSE

IGCSE Math Revision · IGCSE and GCSE (Higher and Extended) · Student sheet

Name _____

Class _____

Date _____

No calculator needed.

Starter (5 minutes)

1. Work out 6×7 .
2. Work out $\sqrt{81}$.

Main activity (35 minutes)

Round 1: Number

Five questions, getting harder.

- a. Write 0.00072 in standard form.
- b. Find the HCF of 84 and 126.
- c. Increase £240 by 15%.
- d. Write 0.444... (recurring) as a fraction.
- e. After a 20% reduction a price is £96. Find the original price.

Round 2: Algebra

Five questions, getting harder.

- a. Solve $5x - 3 = 17$.
- b. Factorise $x^2 - 9x + 20$.
- c. Find the n th term of 7, 12, 17, 22, ...
- d. Solve $x + y = 10$ and $x - y = 4$.
- e. Solve $x^2 - 6x + 4 = 0$, giving exact answers.

Round 3: Shape and space

Five questions, getting harder.

- a. Find the area of a trapezium with parallel sides 6 cm and 10 cm and height 4 cm.
- b. Find the size of each interior angle of a regular octagon.
- c. A right-angled triangle has shorter sides 9 cm and 12 cm. Find the hypotenuse.
- d. A circle has area $49\pi \text{ cm}^2$. Find its circumference in terms of π .
- e. Two similar cylinders have heights 4 cm and 6 cm. The smaller has volume 80 cm^3 . Find the volume of the larger.

Round 4: Data and chance

Five questions, getting harder.

- a. Find the median of 3, 8, 5, 9, 2, 7.
- b. $P(\text{rain}) = 0.35$. Find $P(\text{no rain})$.
- c. The mean of five numbers is 12. Four of them are 10, 15, 9 and 14. Find the fifth.
- d. Two fair coins are thrown. Find $P(\text{two heads})$.
- e. A bag has 4 red and 6 blue counters. Two are taken without replacement. Find $P(\text{both red})$.

Round 5: Mixed bag

Five questions, getting harder.

- a. How many seconds are there in an hour?
- b. Work out $1 + 2 + 3 + \dots + 10$.
- c. How many edges does a cube have?
- d. What is the first prime number after 89?
- e. How many diagonals does a hexagon have?

Extension

- 1. Tie-break, closest wins: how many seconds are there in a week?