

End-of-year maths quiz for IGCSE and GCSE: answers

IGCSE Math Revision · IGCSE and GCSE (Higher and Extended) · Teacher answers and notes

No calculator needed.

Teacher notes

- How to run it: teams of three or four with a mini whiteboard. Read each question out (or use 'Play it on the projector' above for a Jeopardy board with team scores). Questions get harder through each round: 1 point for question 1 up to 5 points for question 5, or use the board's 100 to 500.
- Tie-break: every team writes one estimate; the closest wins.

Starter

1. **42**

- $6 \times 7 = 42$

2. **9**

- $9 \times 9 = 81$

Round 1: Number

a. **7.2×10^{-4}**

- Move the decimal point 4 places.

b. **42**

- $84 = 2 \times 42$, $126 = 3 \times 42$

c. **£276**

- $240 \times 1.15 = 276$

d. **4/9**

- $10x - x = 4$

e. **£120**

- $96 \div 0.8 = 120$

Round 2: Algebra

a. **$x = 4$**

- $5x = 20$

b. **$(x - 4)(x - 5)$**

- $-4 \times -5 = 20$ and $-4 + -5 = -9$

c. **$5n + 2$**

- Difference 5; $7 - 5 = 2$

d. **$x = 7$, $y = 3$**

- Add: $2x = 14$

e. **$x = 3 \pm \sqrt{5}$**

- $(x - 3)^2 = 5$

Round 3: Shape and space

a. **32 cm²**

- $\frac{1}{2} \times (6 + 10) \times 4 = 32$

b. **135°**

- Exterior angle $360 \div 8 = 45$
- $180 - 45 = 135$

c. **15 cm**

- $\sqrt{(81 + 144)} = 15$

d. **14π cm**

- $r = 7$
- $2\pi \times 7 = 14\pi$

e. **270 cm³**

- Length scale factor $3/2$, volume scale factor $27/8$
- $80 \times 27/8 = 270$

Round 4: Data and chance

a. **6**

- 2, 3, 5, 7, 8, 9
- $(5 + 7) \div 2 = 6$

b. **0.65**

- $1 - 0.35$

c. **12**

- $60 - 48 = 12$

d. **1/4**

- $\frac{1}{2} \times \frac{1}{2}$

e. **2/15**

- $4/10 \times 3/9 = 12/90 = 2/15$

Round 5: Mixed bag

a. **3600**

- 60×60

b. **55**

- $10 \times 11 \div 2$

c. **12**

- 4 on top, 4 on the bottom, 4 upright

d. **97**

- 90 to 96 all have a factor; 97 is prime.

e. **9**

- $6 \times 3 \div 2 = 9$

Extension

1. **604 800**

- $60 \times 60 \times 24 \times 7 = 604\,800$

Every question is original and every answer was recomputed by computer before publishing.