

Cambridge IGCSE Maths 0580 Number Practice Exam

Cambridge IGCSE Mathematics (0580), Core and Extended · 24 questions · 50 marks

Name _____

Date _____

Score / 50

- Answer every question. Show your working: most marks are for method.
- Section A no calculator; Section B calculator allowed.
- Topics: Indices I; Estimation; Limits of accuracy; Fractions, decimals and percentages; Ordering; Standard form; Ratio and proportion; Rates; Percentages; Time; Money; Exponential growth and decay; Types of number; Sets; Powers and roots; The four operations; Using a calculator.
- The mark scheme is a separate free PDF: [igcsemathrevision.com/igcse-frontend/downloads/practice-exams/0580/cambridge-igcse-maths-0580-number-practice-exam-mark-scheme.pdf](https://www.igcsemathrevision.com/igcse-frontend/downloads/practice-exams/0580/cambridge-igcse-maths-0580-number-practice-exam-mark-scheme.pdf)

Section A: no calculator

1. Work out [2]
(a) 5^0 (b) 2^{-3}
|
2. Write 0.047362 correct to [2]
(a) 2 decimal places (b) 3 significant figures.
|
3. The length of a pencil is 12 cm, correct to the nearest centimetre. Write down the lower bound and the [2]
upper bound of the length.
|
4. Write 64% as a fraction in its simplest form. [2]
|
5. Write these numbers in order of size, starting with the smallest: $\frac{7}{10}$, 0.07, 71%, 0.717, $\frac{3}{4}$ [2]
|
6. Find the value of n when $5^n = \frac{1}{25}$. [2]
|



7. Work out $(6 \times 10^8) \div (3 \times 10^{-2})$. Give your answer in standard form. [2]
8. The length of a rope is l metres. $l = 7.6$, correct to 1 decimal place. Complete the statement:
 $\dots \leq l < \dots$ [2]
9. The ratio of boys to girls in a club is 3 : 5. There are 35 girls. How many students are in the club altogether? [2]
10. A cyclist rides at an average speed of 18 km/h for 40 minutes. How far does she ride? [2]
11. A jacket costs \$80. In a sale the price is reduced by 35%. Work out the sale price. [2]
12. A train leaves at 09 48 and arrives at 13 17 on the same day. How long does the journey take? Give your answer in hours and minutes. [2]
13. An electricity bill has a standing charge of \$18.50 plus 12 cents for each unit used. Tom uses 1350 units. Work out the total bill. [2]
14. Write down the multiplier for
(a) an increase of 7% (b) a decrease of 15%. [2]
15. Write these numbers in order of size, starting with the smallest. Use the symbols $<$ and $=$ in your answer.
 $\frac{3}{8}$, 0.4, 35%, 0.37, $\frac{2}{5}$ [3]



16. Priya changes \$500 into euros when 1 euro = \$1.25. She spends 310 euros on holiday. She changes the euros she has left back into dollars when 1 euro = \$1.20. How many dollars does she get back? [3]

Section B: calculator allowed

17. Write $\frac{7}{40}$ as a percentage. [1]
18. Find the lowest common multiple (LCM) of 18 and 30. [2]
19. Use set notation to describe [2]
(a) the elements that are in A but not in B
(b) the elements that are in neither A nor B .
20. Work out $2^5 - 3^4$. [2]
21. Work out $(-3)^2 - 4 \times (-2)$. [2]
22. 350 people are going on a trip. Each minibus can carry 16 people. How many minibuses are needed? [2]
23. (a) Use your calculator to work out $\sqrt[3]{45.2}$. Write down all the figures on your calculator display. [2]
(b) Give your answer to part (a) correct to 3 significant figures.



- 24.** The population of a city t years after 2020 is modelled by $P = 2400 \times 1.035^t$ (in thousands). **[3]**
- (a) Write down the percentage increase each year.
- (b) Find the population when $t = 10$. Give your answer in thousands, correct to 3 significant figures.



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