

Cambridge IGCSE Maths 0580 Coordinate geometry and Geometry 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: Geometrical constructions; Coordinates; Drawing linear graphs; Gradient of linear graphs; Equations of linear graphs; Parallel lines; Angles; Circle theorems I; Length and midpoint; Geometrical terms; Scale drawings; Symmetry; Similarity.
- The mark scheme is a separate free PDF: [igcsemathrevision.com/igcse-frontend/downloads/practice-exams/0580/cambridge-igcse-maths-0580-coordinate-geometry-and-geometry-practice-exam-mark-scheme.pdf](https://www.igcsemathrevision.com/igcse-frontend/downloads/practice-exams/0580/cambridge-igcse-maths-0580-coordinate-geometry-and-geometry-practice-exam-mark-scheme.pdf)

Section A: no calculator

1. A net is made from 6 identical squares. Write down the name of the solid it folds to make. [1]

2. Write down the coordinates of [2]
 (a) the point 4 units to the right of the origin and 2 units down
 (b) the point on the y -axis 3 units above the origin.

3. Complete the table of values for $y = 2x + 1$. [2]

x	-1	0	1	2	3
y					

4. The graph of a straight line is drawn on a grid. The line passes through the grid points (0, 1) and (2, 7). [2]
 Use these points to find the gradient of the line.

5. Write down the gradient and the y -intercept of the line $y = 4x - 7$. [2]



6. (a) Which two of these lines are parallel? $y = 3x + 1$, $y = 2x + 3$, $y = 3x - 4$, $y = -3x + 1$ [2]
 (b) Write down the gradient of any line parallel to $y = 5 - 2x$.
7. (a) Two angles on a straight line are 47° and x° . Find x . [2]
 (b) Three angles at a point are 110° , 95° and y° . Find y .
8. AB is a diameter of a circle and C is a point on the circle. Angle $CAB = 35^\circ$. Find angle ABC . [2]
9. A is $(-3, 2)$, B is $(1, 2)$ and C is $(1, -4)$. $ABCD$ is a rectangle. Find the coordinates of D . [2]
10. Complete the table of values for $y = \frac{1}{2}x - 2$. [2]
- | | | | | | |
|-----|----|---|---|---|---|
| x | -2 | 0 | 2 | 4 | 6 |
| y | | | | | |
11. The graph of a straight line is drawn on a grid. The line passes through the grid points $(-2, 3)$ and $(4, 6)$. Use these points to find the gradient of the line. [2]
12. $M(2, -1)$ is the midpoint of the line AB . A is the point $(-3, 4)$. Find the coordinates of B . [2]
13. Find the equation of the line parallel to $y = 3x + 2$ that passes through $(2, 1)$. [2]
14. A prism has a cross-section that is a hexagon. Write down the number of faces, edges and vertices of this prism. [2]



- 15.** For each set of lengths, say whether a triangle can be drawn with these three sides. [2]
(a) 5 cm, 6 cm, 10 cm (b) 2 cm, 3 cm, 5 cm (c) 4 cm, 4 cm, 7 cm
- 16.** Write down the three-figure bearing of [2]
(a) south-west (b) north-east.
- 17.** Write down the name of a quadrilateral that has [2]
(a) 4 lines of symmetry and rotational symmetry of order 4
(b) exactly 1 line of symmetry and rotational symmetry of order 1.
- 18.** Two parallel lines are crossed by a straight line. One of the angles formed is 64° . Find [2]
(a) the angle corresponding to it (b) the angle co-interior to it.
- 19.** AB is a diameter of a circle and C is on the circle. Angle $CAB = x^\circ$ and angle $CBA = 2x^\circ$. Find x . [2]
- 20.** The points $(-1, 3)$ and $(7, -3)$ are the ends of a diameter of a circle. Find the coordinates of the centre [3]
of the circle and the radius.
- 21.** Two identical square-based pyramids are joined together by their square bases. Write down the [3]
number of faces, edges and vertices of the new solid.
- 22.** The net of a cuboid has a total area of 190 cm^2 . The base of the cuboid is 5 cm by 7 cm. Find the [3]
height of the cuboid.



Section B: calculator allowed

- 23.** Write $2y = 6x - 8$ in the form $y = mx + c$ and write down the gradient. [2]

- 24.** Two bottles are similar. Their heights are 18 cm and 27 cm. The diameter of the base of the smaller bottle is 6.4 cm. Find the diameter of the base of the larger bottle. [2]

End of exam · More free exams: igcsemathrevision.com/free-practice-exams

