# Midpoint of a line segment

Grade 4 | Foundation and Higher | 10 questions, 23 marks

**GCSE Maths topic practice**

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**Name:** _____ **Date:** _____ **Score:** _____ **/ 23**

**1** A is the point (2, 4) and B is the point (8, 10).

Write down the coordinates of the midpoint of AB.

(1 mark)

Answer _____

**2** P is the point (1, 6) and Q is the point (7, 2).

Write down the coordinates of the midpoint of PQ.

(1 mark)

Answer _____

**3** C is the point (−4, 3) and D is the point (6, −5).

Work out the coordinates of the midpoint of CD.

(2 marks)

Answer _____

**4** E is the point (2, 5) and F is the point (7, 8).

Work out the coordinates of the midpoint of EF.

(2 marks)

Answer _____

**5** G is the point (−3, −7) and H is the point (−8, 2).

Work out the coordinates of the midpoint of GH.

(2 marks)

Answer _____

**6** M is the midpoint of the line segment PQ.

P is the point (4, −2) and M is the point (−1, 3.5).

Find the coordinates of Q.

(3 marks)

Answer _____


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**7** ABCD is a rectangle drawn on a coordinate grid.

A is the point (1, 2) and C is the point (9, 8). A and C are opposite corners of the rectangle.

The diagonals of the rectangle cross at the centre of the rectangle.

Work out the coordinates of the centre of the rectangle. (2 marks)

Answer _____

**8** A circle is drawn on a coordinate grid.

The points (−3, 4) and (5, −2) are the two ends of a diameter of the circle.

Work out the coordinates of the centre of the circle. (2 marks)

Answer _____

**9** Amara and Ben are in a park. A map of the park uses a coordinate grid where 1 unit represents 1 km.

Amara is at the point (−5, 3) and Ben is at the point (2, −4). They walk in straight lines towards each other and meet at the point exactly halfway between them.

a. Work out the coordinates of the point where they meet.

b. Work out the distance Amara walks, in km. Give your answer correct to 2 decimal places. (4 marks)

Answer _____

**10** M is the midpoint of the line segment AB.

A is the point (−4, 6) and M is the point (1, 2).

a. Find the coordinates of B.

b. Find the length of AB. Give your answer correct to 1 decimal place. (4 marks)

Answer _____

End of questions | Total 23 marks


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