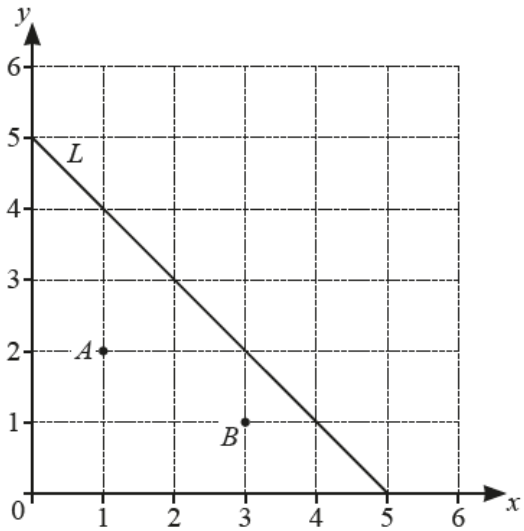
Coordinate geometry – 2022 O Level Math D

1. June/2022/Paper_12/No.3



A and B are vertices of a quadrilateral.
Line L is the line of symmetry of the quadrilateral.

Find the coordinates of the other two vertices of the quadrilateral.

(..... , ...) and (..... , ...) [2]

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2. June/2022/Paper_12/No.5

The scale drawing shows the positions of two villages, A and B.
The scale is 1 cm to 2 km.

Scale: 1 cm to 2 km

(a) Find the actual distance between village A and village B.

..... km [2]

(b) Measure the bearing of B from A.

..... [1]

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3. June/2022/Paper_21/No.11

P is the point $(3, -3)$ and Q is the point $(1, 5)$.

(a) Calculate the length of PQ.

..... [2]

(b) Find the equation of the perpendicular bisector of PQ.

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..... [5]

4. June/2022/Paper_22/No.10

D is the point $(4, 6)$ and E is the point (e, e).

(a) The length of DE is $\sqrt{20}$.

Form an equation in e and solve it to find the possible coordinates of E.
Show your working.

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(..... , ...) or (..... , ...) [5]

(b) F is the point $(-f, 5f)$.

The gradient of the perpendicular bisector of DF is $\frac{3}{2}$.

(i) Find the value of f.

$f =$ ..... [4]

(ii) The equation of the perpendicular bisector of DF is $2y = 3x + k$.

Find the value of k.

$k =$ ..... [3]

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