Mark schemes

Q1.

(a) (1, 6)

B1

(b) Mark at (6, 4)

Accept cross, dot etc
Mark must be intended to be on line BC

B1

(c) 2 × their 4 + 2 × their 5 or 8 + 10

4 or 5 must be correct

M1

18

SC1 22

A1

[4]

Q2.

(a) (1, 3)

B1

(b) Plot at (5, 3) or lines drawn to form rectangle

letter D need not be seen

B1

(c) 3 + 4 (= 7)

oe ± 1 mm for each length

M1

14

A1

[4]

Q3.

(a) (2, 5)

B1

(b) B plotted at (8, 1)

B1

(c) (5, 3)

ft from their B
B1 ft for 1 number correct or point shown on grid

B2 ft

[4]

Q4.

(a) (2, 4)

B1

(b)   Point B plotted at (−3, −1)

B1

(c)   (2, −1)

ft from their (a)

B1 ft

[3]

Q5.

(a)   (5, 2)

B1

(b)   Point correctly indicated on grid at (1,2)

B1

(c)   (*A*, 4) and (*B*, 4)

B1 one correct point

where *A* and *B* are two different numbers

SC1 line $y = 4$ drawn

SC1 two correct points and no incorrect points marked on graph

B2

[4]

Q6.

(a) $x = 2$

B1

(b)   Correct straight line drawn

at least 3 diagonal squares long

B1

(c)   2, 2

ft their intersection with line A only if B0 in part (b)

B1ft

[3]

Q7.

Alternative method 1

Plots (−1, 2) and (1, 6)

Mark intention

M1

Fully correct ruled line through the correct points

A1

Draws the line $y = x$

B1

(−4, −4)

ft their intersection

B1ft

Additional Guidance

Correct line drawn implies points (−1, 2) and (1, 6) are plotted

M1A1

Alternative method 2

Gradient = $\dfrac{6-2}{1-(-1)}$ or $\dfrac{2-6}{-1--1}$ or 2

oe

Implied by the correct equation

M1

$(y =) 2x + 4$

Correct function for their gradient

M1dep

their $2x + 4 = x$

ft their function

M1

(−4, −4)

A1

Additional Guidance

$\dfrac{6-2}{1-(-1)} = -2$

M1

$y = -2x + 4$

M1

$-2x + 4 = x$

M1

$x = \dfrac{4}{3}$

A0

[4]

Q8.

Identifies or plots any two correct points

points with integer values are

x	−3	−2	−1	0	1	2	3
y	5	4	3	2	1	0	−1

may be in a list
ignore incorrect plots

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Correct straight ruled line from (–3, 5) to (3, –1)

ignore incorrect plots if correct line drawn

A1

Additional Guidance

Correct line, but not extending from (−3, 5) to (3, −1)

M1A0

Two lines, one correct and one incorrect

M1A0

[2]

Q9.

(a)   −5 1 7 10

B1 for 2 or 3 correct

B2

(b)   At least 2 of their points correctly plotted

M1

Straight ruled line drawn from (−3, −8) to (3, 10)

A1

(c)   Draws the line y = x on the grid or −2x = 1 or −1 = 2x

oe

M1

$-\dfrac{1}{2}$

oe

A1

[6]

Q10.

3 different mistakes identified

B1 for each different mistake identified from
It should be a straight line
Point (0, 1) plotted incorrectly
Two 3s on x-axis
Axes not labelled
Line not labelled (y = x + 1)

B3

Additional Guidance

Accept equivalent statements

[3]

Q11.

    (a)   (2, 5)

                                                                                                                         B1

    (b)   Point (6, 1) plotted

                                                                                                                    B1

    (c)   (6, 5)

                                          ft if (6, 1) is wrongly plotted but their
                                          D completes a rectangle

                                                                                                                 B1 ft

    (d)   (4, 3)

                                          ft for rectangle

                                                                                                                 B1 ft

                                                                                                                        [4]

Q12.

$$\frac{x+3x}{2} = -4$$

or $4x = 2 \times -4$ or $4x = -8$

or $2x = -4$

                                          oe

                                                                                                                 M1

$x = -2$

                                          oe

                                                                                                                 A1

$$\frac{2y+4y}{2} = 15$$

or $6y = 2 \times 15$ or $6y = 30$

or $3y = 15$

                                          oe

                                                                                                                 M1

$y = 5$

                                          oe

                                                                                                                 A1

                                                                                                                 [4]

Q13.

    (a)   −7

                                                                                                                        B1

            5

                                                                                                                        B1

    (b)   At least 2 points correctly plotted

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May be implied from a correct line

M1

Straight ruled line drawn from −3 to 3

± $\frac{1}{2}$ *square tolerance*

A1

[4]

Q14.

(a) (−2, 3)

B1

(b) Point plotted at (−4, −3)
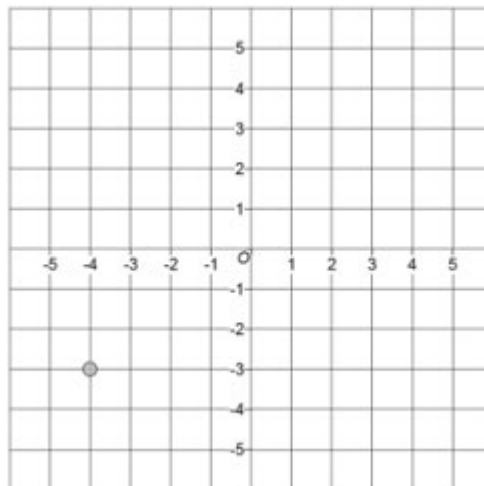
B1

(c) (−4,−3)

ft their plotted point
eg (6, −3) if used (ABDC)
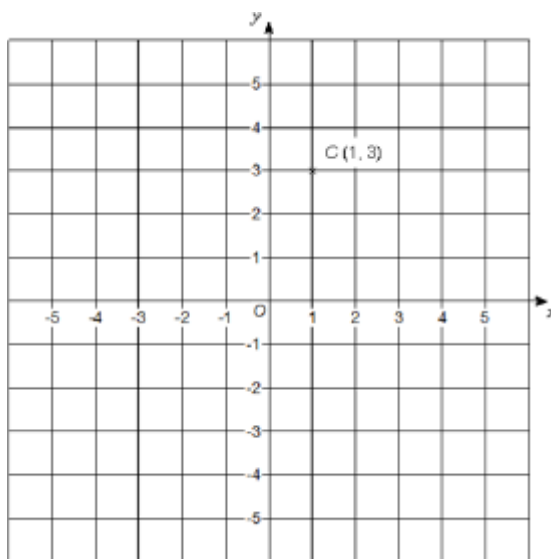
B1 ft

[3]

Q15.

(a)
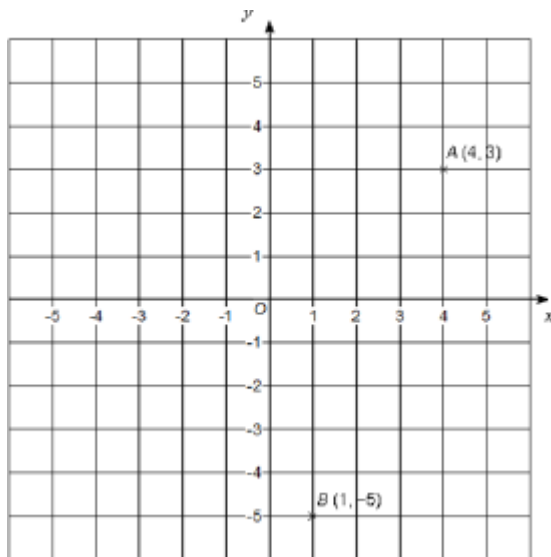
A plotted correctly

Need not be labelled

B1

B plotted correctly

Need not be labelled

B1

(b)

C plotted at (1, 3)

Need not be labelled

B1

(c)

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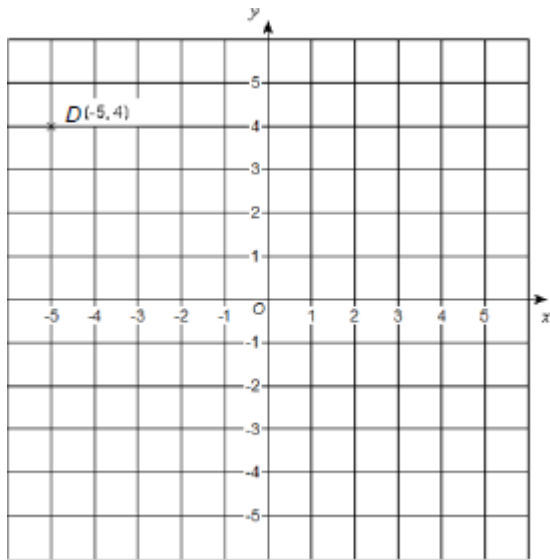
D plotted at (−5, 4)

B1 for one coordinate correct
Need not be labelled

B2

[5]

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