**M1.**(a) x = 2

**B1** 

(b) Correct straight line drawn

at least 3 diagonal squares long

**B**1

(c) 2, 2

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

B1ft

[3]

**M2.**(a) Either correct rectangle drawn

A, B, (7, 2) and (3, 2)

or A, B, (7, 8) and (3, 8)

(ignore labels)

B1 for (7, 2) and (3, 2) plotted or for (7, 8) and (3, 8) plotted

B1 for any rectangle with area 12 cm<sup>2</sup>

B1 for any rectangle with vertices A and B.

**B2** 

(b) C(7, 2) and D(3, 2)

or C(7, 8) and D(3, 8)

B1 for correct coordinates with incorrect order ie D and C reversed

ft their rectangle or square ABCD for up to B2

ft their rectangle or square ABDC

for up to B1

B2ft

**M3.** Any two points of the form (x, 2x + 1) except (-2, -3) and (-4, -7) B1 any one correct point

B2 [2]

M4.

(a) Point plotted at (5, 1)

**B**1

(b) Points plotted at (3, 1) and (5, 3)

B1 for either

ft their point plotted in (a)

B2ft

(c) 4, 2

ft their points plotted in (b)

B1ft

[4]

M5.

(a) (2, 2)

**B1** 

(b) Alternative method 1

Draws line through their two correct points crossing x-axis

or

plots point on x-axis consistent for their two correct points

M1

3.5, 0

ft the two points not selected in (a) SC1 0, 3.5

A1ft

## Alternative method 2

2x (+ 0) = 7

**M1** 

3.5, 0

SC1 0, 3.5

**A1** 

[3]

M6.

(a) (4, 1)

**B1** 

(b) Correct plot at (−2, 4)

Allow point at (4, -2) if (a) stated as (1, 4)

B1ft

[2]

M7.

x coordinate = 2

(2, 4) marked on diagram.

**B**1

Base = 7 - 3 = 10

10 marked on diagram as base or stated as base in script. This mark is for showing that the base is 10 and **not** for 7 - 3 = 10 if used to find the x coordinate.

**B1** 

Height =  $20 \div \text{their } 10 \times 2 (= 4)$ 

4 marked on diagram as height

**NB** height shown or stated as 4 is 2 marks (assume base of 10)

**M1** 

y coordinate = 8

ft their height if M awarded and no other errors.

Accept

**NB** 8 stated as y coordinate is B1, M1, A1 (ie last 3 marks)

unless contradictory or wrong working.

A1ft

[4]

M8.

(a) (6, 4)

**B1** 

700 (b)

> B1 7 seen

> > or

600 or 800

or

Shortest route shown on diagram

**B2** 

(c) (3, 6)

> Allow (6, -1) or (7, 0) or (8, 1) for B2 B1 (0, 5) or (1, 4) or (1, 6) or (2, 3) or

(2, 5) or (3, 2) or (4, 1) or (4, 5) or

(5, 0) or (5, 4) or (6, 3)

or

(2, 6)

**B2** 

[5]

**M9.**(10, 1)

B1 for one correct coordinate SC1 for (4, 7)

**B2** 

## **Additional Guidance**

(10, 2)

is B1

(9, 1)

is B1

(1, 10)

is B0

**M10.**(a) A(-3, -5)

**B1** 

[2]

B(2, -3)

SC1 for A (2, -3) and B (-3, -5)

В1

(b) C plotted at x-coordinate less than -3

**B**1

C plotted at y-coordinate 2 or 4 or 6

SC1 for correct coordinates if no point plotted

**B1** 

## **Additional Guidance**

C does not need to be labelled if intention is clear.

The *x*-coordinate need not be an integer.

C plotted at:

(-3.5, 2)

B1 B1

(-3.5, 3)

B1 B0

(-4, 0)

B1 B0

(2, 2)

B0 B1

(-3, -2) B0 B0

[4]

**M11.**(a) (3, 5)

**B1** 

(b) (1, 3), (3, 3) and (5, 3)

In any order

B1 for each

B3 [4]

M12.

(a) (1, 4)

**B1** 

(b) M plotted at (3, 4)

**M1** 

B plotted at (5,4) SC 1 (7, 2)

**A1** 

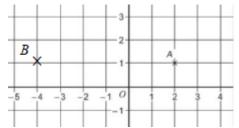
[3]

M13.

(a) (2, 1)

**B1** 

(b) Correct plot



Accept point drawn but not labelled or just B in correct position

**B**1

(c) C marked at (2, -3) or (-4, -3) or (-4, 5) or (2, 5)B1 for any right angled triangle with AB as a side.

B1 for C marked anywhere on y = -3 or y = 5Do not need to have lines drawn

ft for their B

B2ft

[4]

M14.

(a) 
$$(A3 \rightarrow B3 \rightarrow B2 \rightarrow)$$

$$(\rightarrow D1)$$

**B1** 

$$(\text{A3} \rightarrow \text{A2} \rightarrow \text{A1} \rightarrow)$$

or

$$(A3 \rightarrow A2 \rightarrow A1 \rightarrow)$$

$$B1 \rightarrow C1 \rightarrow C2 \rightarrow B2 \rightarrow$$

$$B3 \rightarrow C3 \rightarrow D3 \rightarrow D2$$

$$(\rightarrow D1)$$

**B1** 

C1

**B1** 

**B1** 

(iii) 
$$(A3 \rightarrow B3 \rightarrow)$$

$$B2 \rightarrow A2 \rightarrow A1 \rightarrow B1 \rightarrow$$

$$(\rightarrow D1)$$

B1 1 (+) 1 (+) 2 (+) 2 (+) 2 (+) 1

or

9 seen

or

 $(A3 \rightarrow B3 \rightarrow)$ 

$$\begin{array}{c} B2 \rightarrow C2 \rightarrow \\ C1 \end{array}$$

 $(\rightarrow D1)$ 

or

8 seen

B2 [6]

		B1	
(b)	Point B plotted at (−3, −1)	В1	
(c)	(2, -1)  ft from their (a)	B1 ft	[3]
<b>M16</b> .(a)	(2, 3)	B1	
(b)	Point plotted 8 across and 3 up  Mark intent  Label B can be missing  SC1 For reversed coordinates (3, 2) in (a) and point plotted 3 across and 8 up	<b>B</b> 1	[2]
<b>M17</b> .(a)	(1, 6)	<b>B</b> 1	
(b)	(4, 6)	B1	
(c)	Point plotted at $(4, y)$ such that $0 \le y < 6$ and $y \ne 4$ e.g. $(4, 0)$ or $(4, 1)$ or $(4, 2)$ or $(4, 3)$ or $(4, 5)$	<b>B</b> 1	[3]