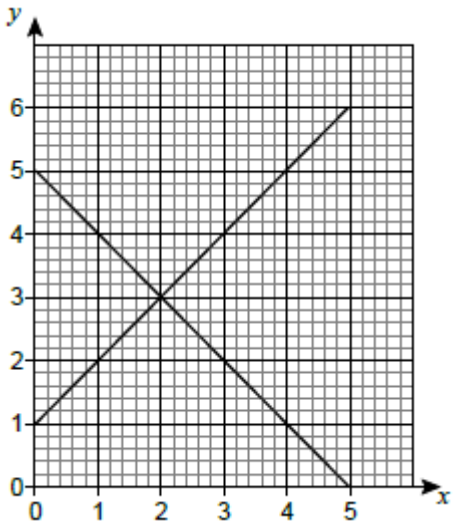
M1.

(a) Straight line through
(0, 1), (1, 2), (2, 3), (3, 4), (4, 5) and (5, 6)



B1 Two correct points plotted

B2

(b) $x = 2$ and $y = 3$

ft their linear graph from (a)

B1ft

[3]

M2.(a) 90

B1

(b) 240

B1

(c) 410

B1

150 + 6 × 50 or 450

oe

450 − 410 is B1M1

M1

A and 40

ft their 410 (value indicated for law firm A)

A and 40 is B1M1A1

A1ft

Alternative method

410

B1

Line from (90, 150) to (270, 450)

M1

A and 40

ft their 410 (value indicated for law firm A)

A and 40 is B1M1A1

A1ft

[5]

M3.(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]

M4. Any two points of the form (x, $2x + 1$) except (−2, −3) and (−4, −7)

B1 any one correct point

B2

[2]

M5. (a) −7

B1

5

B1

(b) At least 2 points correctly plotted

May be implied from a correct line

M1

Straight ruled line drawn from −3 to 3

$\pm \frac{1}{2}$ *square tolerance*

A1

[4]

M6.

(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]

M7.(a) −4, 2, 8

B1 for two correct

B2

(b) Two of their points plotted correctly

ignore incorrect points

M1

Fully correct straight ruled line from (−2, −4) to (2, 8)

A1

Additional Guidance

Lines must be clearly drawn with a ruled line

(c) 3

B1

Additional Guidance

$\frac{3}{1}$ on answer line is B1

[5]

M8.(a) Correct straight line at least 2 vertical squares in length

If drawn without a ruler must be within ±1mm of the actual line

B1

(b) Correct straight line at least two 'diagonals' in length

If drawn without a ruler must be within ±1mm of the points (1, 1), (2, 2) etc

If the correct answers to both parts have been transposed, award B1 in this part

B1

[2]

M9.2 or 3 correct plots

±½ square tolerance

M1

Fully correct straight ruled line from (–3, –3) to (3, 9)

±½ square tolerance

A1

Additional Guidance

2 or 3 correct points from (–3, –3) (–2, –1) (–1, 1) (0, 3) (1, 5) (2, 7) (3, 9) for the first M1

Ignore additional points

[2]

M10.

(a) 7

B1

(b) Points correctly plotted

ft from their table

M1

Correct line drawn for $-1 \leq x \leq 3$

A1

(c) $y = 5$ drawn

B1

[4]

M11.

(a) 3×4 (=12)

$7 = 3x - 6$

M1

$12 - 6 = 6$

$x = 4.3$

A1

Alternative 1

Correct line from $y = 3$ to $y = 4$

M1

Correct line from $y = 3$ to $y = 4$ and plots (4, 7) or writes correct justification

A1

Alternative 2

3×4 (= 12)

M1

Line should be $y = 3x - 5$

A1

(b) $0 = 3x - 6$

M1

2, 0

A1

Alternative
Correct line from $x = 1$ to $x = 2$ or
correct line from $x = 2$ to $x = 3$

M1

2, 0

A1

[4]

M12.(a) –5 –1 3

B1 for 1 or 2 correct

B2

(b) Fully correct line drawn

B1ft at least 3 points plotted correctly (using their table)
or B1 part of the correct line drawn

B2

[4]

M13. y intercepts at 1 and − 1

oe eg 1 and (−) 1 marked on diagram

B1

$(y =)\ 7$ (at B) and $(y =) - 4$ (at D)

oe eg 7 and (−) 4 on diagram or in working

B1

1 − − 1 (= 2) **or** 7 − − 4 (= 11)

Using their coordinates

M1

2 : 11 *oe*

A1

[4]

M14.(a) Correct straight (if not drawn with a ruler then intention to be straight) line graph from (0, −1) to (4, 7) with 1mm

B2 correct line but not from (0, −1) to (4, 7) for at least a continuous x distance of 2.

(½square) tolerance

B2 all integer points (any others must also be correct) between 0 and 4 plotted but line not drawn

Allow a dashed line

B2 correct but more than ½ square from tolerance

Only one of these may be awarded.

B1 straight line graph through (0, −1) of any length even if crooked later but not x = 0 or y = −1

B1 Single straight line graph with gradient 2 of any length

B1 two correct points calculated (eg in table) or plotted

Any line that is not straight is B0 although the B1 for two points calculated or plotted may still be gained

B3

(b) 1.5

Correct (eg from algebra) or ft their graph ify = 2 drawn to the graph and then a vertical line to x-axis

B1

[4]

M15.

(a) 2

B1

(b) Plots their points

M1

Correct line

A1

(c) 2.5, 2.5

ft if possible

B1ft

[4]

M16.(a) −3, −1, 3

B1 for 1 or 2 correct

B2

(b) At least 2 of their 5 points plotted correctly

May be implied from straight line
± ½ square

M1

Fully correct straight ruled line from − 2 to 2

± ½ square

A1

[4]