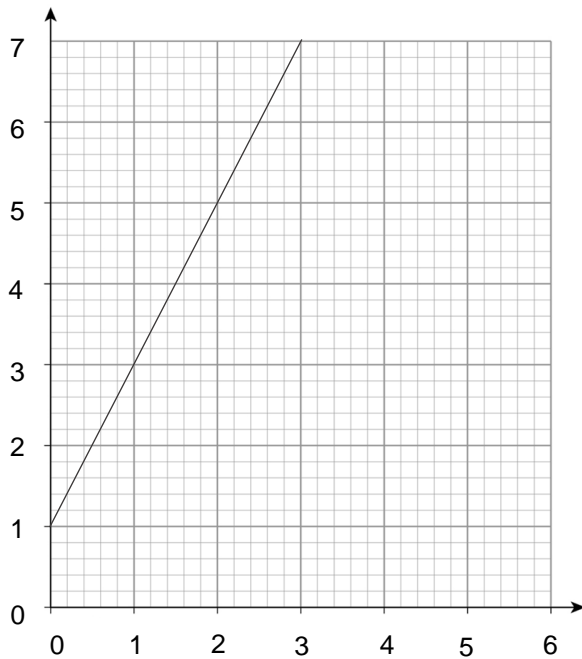


Drawing Straight Line Graphs Mark Scheme

1

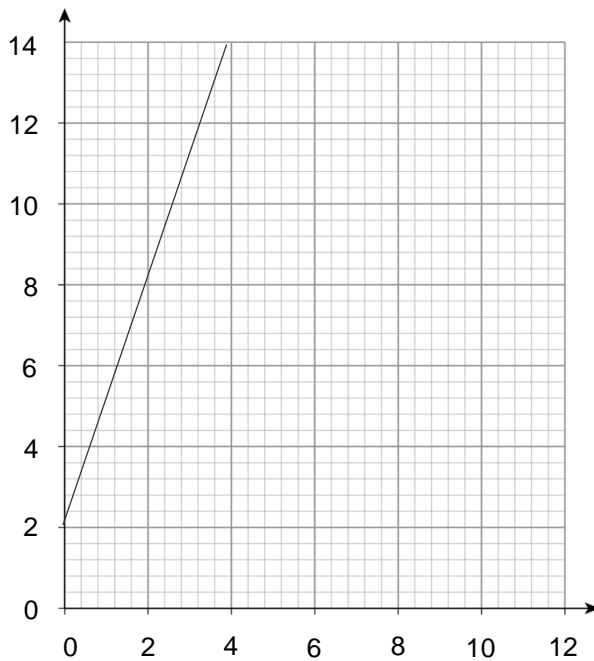


[1] Straight line drawn crossing the y-axis at $y = 1$

[1] gradient of 2 (for every 1 across line should go up by 2)

[1] both correct thus line of $y = 2x + 1$ drawn accurately

2



[1] Straight line drawn crossing the y-axis at $y = 2$

[1] gradient of 3 (for every 1 across line should go up by 3)


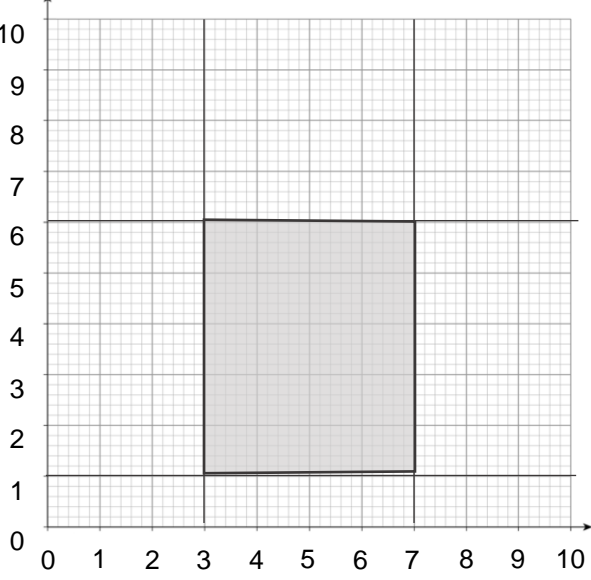
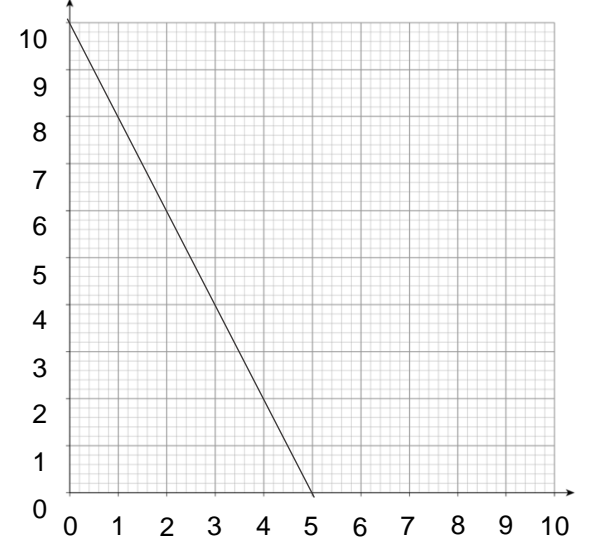
[1] both correct thus line of $y = 3x + 2$ drawn accurately

3

| x | y |
|----|---|
| 0 | 2 |
| 4 | 4 |
| 8 | 6 |
| 12 | 8 |

[1] For completion of table

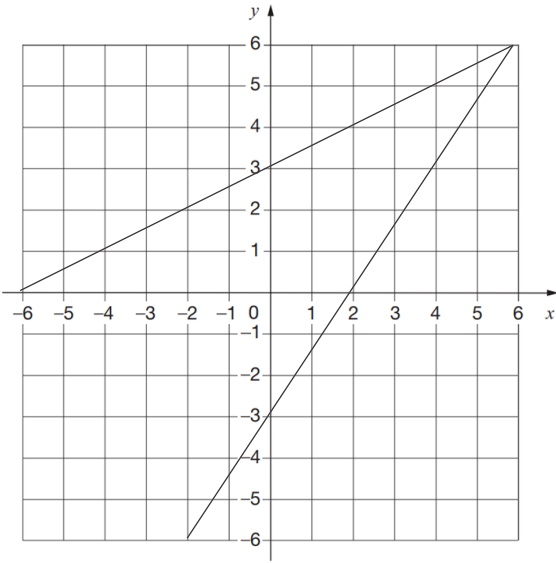
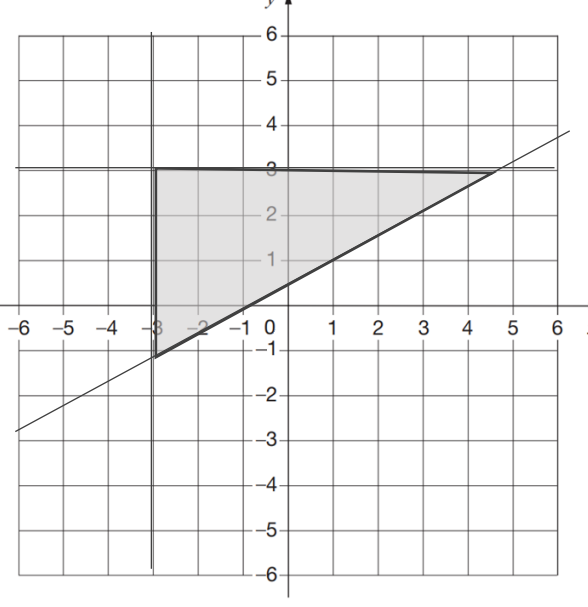
Turn over ►

| | | |
|---|---|---|
| 3 |  | <p>[1] Straight line drawn crossing the y-axis at $y = 2$</p> <p>[1] Gradient of $1/2$ (for every 1 across line should go up by $1/2$)</p> <p>[1] Both correct thus line of $y = \frac{1}{2}x + 2$ drawn accurately</p> |
| 4 |  | <p>[4] Award mark per correct line drawn</p> |
| | <p>Area of shape ($4 \times 5 = 20$) Answer = 20 cm^2</p> | <p>[1] If drawn incorrectly award mark if correctly calculated from students diagram</p> |
| 5 |  | <p>[1] Straight line drawn crossing the y-axis at $y=10$</p> <p>[1] gradient of 5 (for every 1 across line should go up by 5)</p> <p>[1] both correct thus line of $y = -2x + 10$ drawn accurately</p> |

Turn over ►

| | | |
|------|--|---|
| 6 | | <p>[1] correctly plotted line</p> <p>[1] identifying the y-intercept as -1.5</p> |
| 7(a) | <p>The equation of the line was interpreted incorrectly as it was not arranged into the form $y = mx + c$ i.e. Adam incorrectly assumed the gradient was -2</p> | <p>[1] Correct statement</p> |
| 7(b) | <p>Adam has in fact plotted the line $y = -2x + 3$</p> | <p>[1] Actual line drawn</p> |
| 7(c) | | <p>[1] Straight line drawn crossing the y-axis at $y=3$</p> <p>[1] gradient of +2 (for every 1 across line should go up by 2)</p> |

Turn over ►

| | | |
|------|--|--|
| 8(a) |  | <p>[1] Straight line drawn crossing the y-axis at $y=-3$</p> <p>[1] Same line drawn with a gradient of $+1.5$ (for every 1 across line should go up by 1.5)</p> <p>[1] Straight line drawn crossing the y-axis at $y= +3$</p> <p>[1] Same line drawn with a gradient of $+0.5$ (for every 1 across line should go up by 0.5)</p> |
| 8(b) | The two lines intersect at the co-ordinates (6,6) | [1] |
| 9(a) |  | <p>[1] for $x=-3$ line</p> <p>[1] for $y = 3$ line</p> <p>[1] for rearranging to $y = \frac{1}{2}x + \frac{1}{2}$</p> <p>[1] for plotting $y = \frac{1}{2}x + \frac{1}{2}$ line</p> |
| 9(b) | Any co-ordinated that is in side the region bounded by the lines e.g. (-2,1) | [1] |
| | | |

END