M1.

$y = 5x + 2$

B1

[1]

M2.

$3y = 15x - 3$ and $y = 5x - 3$

B1 $3y = 15x - 3$ and $y = 5x - 3$ and one incorrect
or
$3y = 15x - 3$ or $y = 5x - 3$ and none or one incorrect

B2

[2]

M3.

$10 = -2(-3) + c$ or $c = 4$

$y - 10 = -2(x - (-3))$ or $y = -2x + c$

M1

$y = -2x + 4$

A1

[2]

M4.

$m = 5$

B1

$3 = 5 \times 4 + c$ **or** $3 = 20 + c$

$y - 3 = 5(x - 4)$ or $y - 3 = 5x - 20$
oe

M1

$c = -17$

SC1 for $y = -0.2 \times + 3.8$ (using the perpendicular gradient)

A1

[3]

M5. Gradient of $AC = -2$ or $y = -2x + 4$

M1

0 = their $-2 \times 1 + c$

M1dep

$c = 2$ **and** $y = -2x + 2$

A1

Alternative method 1

Line drawn parallel to AC passing through (0, 2) and B

M1

Calculating or stating gradient of both lines as −2

eg $y = -2x + 2$ **and** $y = -2x + 4$

M1dep

Reference to intercept being 2 and stating $y = -2x + 2$

A1

Alternative method 2

Line drawn parallel to AC passing through (0, 2) and B

M1

Intercepts are (0, 2) and (1, 0) so equation is (y intercept) × x + (x intercept) × y = (y intercept) × (x intercept)

M1dep

Therefore (2) × x + (1) × y = (2)(1) ➔ $2x + y = 2$

A1

[3]

M6. Right-angled triangle drawn above or below either line, with lengths indicatedorEither 2 and 6 or 3 and 9 used as a ratio or fraction

Correct substitution into gradient formula $\frac{y2 - y1}{x2 - x1}$ *… or inverted*

Award for $\frac{1}{3}$ *seen with no working*

M1

$\frac{2}{6}$ and $\frac{3}{9}$

A1

Both simplify to $\frac{1}{3}$ so lines parallel or have same gradient
or

Equations are $y = \frac{1}{3}x + 2$ and $y = \frac{1}{3}x - 3$ hence lines are parallel or lines havesame gradient

A1

[3]

M7. 7 + 6 or 1 + 12

oe

M1

13

B = (4, 13) or C = (0, 13) seen is M1 A1

A1

$y = 3x + 13$

SC1 $y = 3x + c$

$c \neq 0$ *and* $c > 0$ *but not* $c = l$

$C = 3x + c$ $c \neq 13$ *scores no marks*

SC2 for $C = 3x + 13$

A1

[3]