

**M1.**

Ticks 'False' and states that  $x$  could be  $-4$   
 oe

**B1**

**[1]**

**M2.(a)**  $(x + a)(x + b)$

where  $ab = \pm 24$

**M1**

$$(x + 8)(x - 3)$$

either order

**A1**

(b)  $(x =) - 8$  and  $(x =) 3$

ft their part (a)

**B1 ft**

**[3]**

**M3.(a)**  $x + 7.5$  or  $7.5 + x$

$$x + 7 \frac{1}{2}$$

**B1**

(b)  $x(x + 7.5) = 2(x + x + 7.5)$

ft their  $x + 7.5$  from (a) in the form  $x + c$  for all 4 method marks

**M1**

$$x^2 + 7.5x = 4x + 15$$

**M1**

$$x^2 + 3.5x - 15 = 0$$

or

$$2x^2 + 7x - 30 = 0$$

M1

$$(2x - 5)(x + 6) (= 0)$$

M1

2.5 and 10

*either order but in correct pairs*

**and**

-6 and 1.5

*SC1 one correct pair*

A1

**[6]**

**M4.**  $(x^2 + 2x - 3) - (x^2 + x - 3)$

*Or attempt to 'balance' equations*

M1

$$y = x$$

A1

- 2.3 and 1.3

*ft if M awarded and their line drawn*

A1ft

**[3]**

**M5.**  $(x - 3)(x + 3)$

*Substitutes any value for  $x$  into both expressions but not  $x = 0$*

M1

$(x - 3)(x + 5)$

*Sets up a correct equation in  $b$*

M1dep

$(b =) 2$  or  $x^2 + 2x - 15$

A1

[3]

**M6.**  $(x + 4)(x - 5) (= 90)$

M1

$x^2 + 4x - 5x - 20 (= 90)$

*Allow 1 error*

M1

$x^2 - x - 110 (= 0)$

*Collecting their 4 terms and 90  
dependent on 2<sup>nd</sup> M1 only*

M1dep

$(x + 10)(x - 11)$

*$(x + a)(x + b)$  where  $ab = \pm$  their 110  
Use of formula – allow one error*

M1

11

*Note: 11 and - 10 implies M4A0*

A1

[5]

