15. (a) Factorise $2x^2 + 7x + 5$

17. (a) Factorise

$$9x^2 - 6x + 1$$

(b) (i) Solve the equation $x^2 - x - 56 = 0$

(c) Solve the equation $3x^2 - 14x + 16 = 0$.

14. (a) Factorise $2x^2 + 19x - 33$

20. Solve the equation

$$(2x - 3)^2 = 100$$

(c) (i) Factorise $x^2 - 23x + 42$

.....

(ii) Hence solve $x^2 - 23x + 42 = 0$

.....

(3)

11.

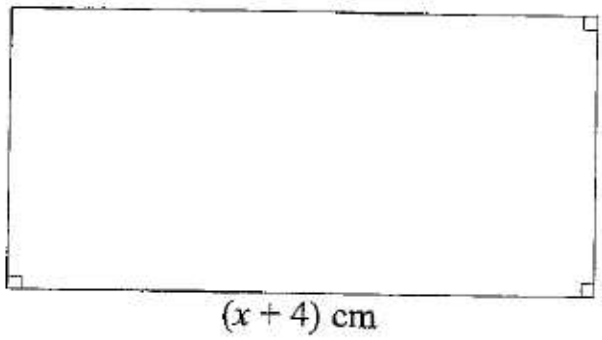

Diagram **NOT** accurately drawn.

The length of a rectangle is $(x + 4)$ cm.

The width is $(x - 3)$ cm.

The area of the rectangle is 78 cm^2.

(a) Use this information to write down an equation in terms of x.

.....

(2)

(b) (i) Show that your equation in part (a) can be written as

$$x^2 + x - 90 = 0$$

(ii) Find the values of x which are the solutions of the equation

$$x^2 + x - 90 = 0$$

$x =$ ..... or $x =$ .....

(iii) Write down the length and the width of the rectangle.

length = ... cm

width = ... cm

(6)