Skill building: Solving Quadratic equations

Hints

- Do the outside questions first
- Factorise into brackets
- Don't use the quadratic formula

Solve these equations

$x^2 - 64 = 0$

$x^2 + 3x - 18 = 0$

$x^2 + 11x + 10 = 0$

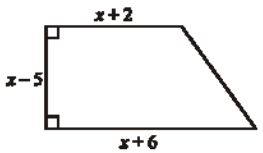
$x^2 - 5x - 24 = 0$

$x^2 + 7x + 12 = 0$

$x^2 + 7x = 18$

$3x^2 + 7x + 2 = 0$

Diagram NOT accurately drawn



The diagram shows a trapezium.
The lengths of three of the sides of the trapezium are:
$x - 5$, $x + 2$ and $x + 6$.
All measurements are given in centimetres.
The area of the trapezium is 36 cm^2.
(a) Show that $x^2 - x - 56 = 0$
(b) Solve the equation
$x^2 - x - 56 = 0$

Expand these expressions

(x+1)(x-10)

x(15-x)

9(x-2)

(x-5)(x-7)

3(x-1)(x+4)

(2x+1)(x+3)

x(x+6)

(x+8)(x-8)

(x-4)(x+6)

Factorise these expressions

$x^2 - 49$

$x^2 + 6x + 5$

$x^2 + 8x - 20$

$x^2 - 11x - 24$

$x^2 - 10x + 25$

$2x^2 + 3x + 1$

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