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**MATHEMATICS {IGCSE – IX/X}
Quadratic Equation**

Marks: 20

1. Solve the equation $y + 1 = \frac{4}{y+1}$

Answer $y = \dots\dots\dots$ or $y = \dots\dots\dots$ [5]

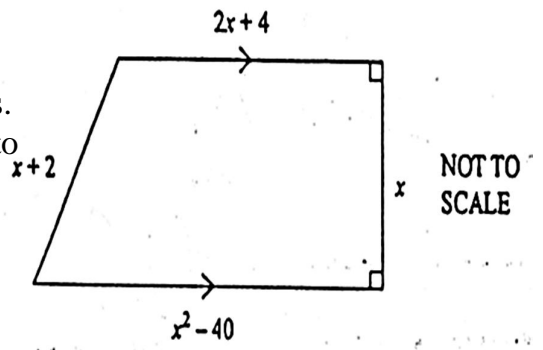
2. Solve $3x^2 - 11x - 20 = 0$

Answer $x = \dots\dots\dots$ or $x = \dots\dots\dots$ [3]

3. Solve $x(x + 7) = 4$, giving the answer correct to 2 decimal places.

Answer $x = \dots\dots\dots$ or $x = \dots\dots\dots$ [4]

4. The diagram shows a trapezium. Two of its angles are 90° . The lengths of the sides are given in terms of x . The perimeter is 62 units.



- i. Write down a quadratic equation in x to show this information.
Simplify your equation.

Answer [3]

- ii. Solve your quadratic equation.

Answer $x = \dots\dots\dots$ or $x = \dots\dots\dots$ [3]

- iii. Write down the only possible value of x and explain why the other value is not possible.

Answer $x = \dots\dots\dots$ units and $\dots\dots\dots$

$\dots\dots\dots$ [2]