

### Solving Quadratic Equations Which Require Rearrangement

Solve by factorisation:

- (a)  $x^2 + 4x = 5$
- (b)  $12 = x^2 - 4x$
- (c)  $x = x^2 - 20$
- (d)  $x^2 = 6x - 8$
- (e)  $9x = 22 - x^2$

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Solve by factorisation:

- (a)  $x^2 + 4x = 2x + 15$
- (b)  $11 + x^2 + 3x = 5 - 2x$
- (c)  $7 - 4x = x^2 - 10x$
- (d)  $2x^2 + 30 = x^2 + 13x$
- (e)  $4 + 5x - x^2 = 34 - 6x$

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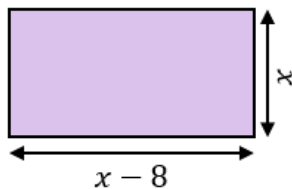
Solve by factorisation:

- (a)  $x(x - 5) = 14$
- (b)  $25 + x = x(x + 1)$
- (c)  $3(x + 4) = x^2 + 2x$
- (d)  $x(x - 1) = 5(x + 2) + 6$
- (e)  $(x + 2)(x - 3) = 5x + 12$

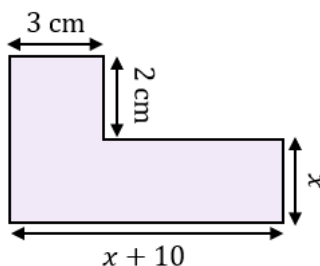
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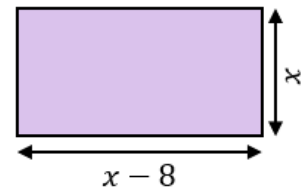
(a) Given that the area of the rectangle is  $65 \text{ cm}^2$ , form a quadratic equation and solve it to find  $x$ .



(b) Given that the area of the compound shape is  $45 \text{ cm}^2$ , form a quadratic equation and solve it to find  $x$ .



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