

Tools 2

MA1032 Data, Functions & Graphs

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Expanding an Expression

Example

Expand and simplify the following.

- $x(3x - 8) + 2(3x - 8)$
- $(5z - 3)(x - 2)$

Example

Multiply and write the express without parentheses. Gather like terms.

- $(A^2 - B^2)^2$
- $-(\sqrt{2x} + 1)^2$

Factoring

Example

Factor completely if possible.

- $3u^7 + 12u^2$
- $x^2 + 3x - 28$
- $a^4 - a^2 - 12$
- $r(r - s) - 2(s - r)$
- $(t + 3)^2 - 16$

Solving Quadratic Equations

Example

Solve the following equations.

- $2w^2 + w - 10 = 0$
- $\frac{6}{z-2} + \frac{8}{z^2-2z} = 0$
- $\frac{(3x+4)(x-2)}{(x-5)(x-1)} = 0$
- $Ab^5 = C$ for b .

Summary

- ① Expanding
- ② Factoring
- ③ Solving Quadratics