

Section 2: Dividing and factorising polynomials

Section test

- Which of the following are factors of $x^3 - x^2 - 8x + 12$?
(a) $x+1$ (b) $x-1$
(c) $x+2$ (d) $x-2$
- Which of the following are factors of $2x^3 + 5x^2 + x - 2$?
(a) $x+1$ (b) $x-1$
(c) $x+2$ (d) $x-2$
- Which one of the following is NOT a factor of $2x^3 + x^2 - 2x - 1$?
(a) $2x+1$ (b) $2x-1$
(c) $x+1$ (d) $x-1$
- Divide $2x^3 + 7x^2 - 7x - 5$ by $2x+1$.
- Divide $3x^4 - 7x^3 + 4x^2 - 8$ by $x-2$.
- $x-2$ is a factor of $3x^3 - 5x^2 + ax + 2$.
What is the value of a ?
- $x-1$ and $x+2$ are both factors of $2x^3 - x^2 + px + q$.
Find the values of p and q .
- $x-1$ is a factor of $2x^3 + x^2 - 5x + 2$. This expression can be written in the form $(x-1)(ax^2 + bx + c)$. Find the values of a , b and c .
- Factorise $6x^3 + 7x^2 - x - 2$ into three linear factors.
- Solve the equation $2x^3 + x^2 - 5x + 2 = 0$.