

Higher Maths
SQA 2018 Specimen
Paper 1 Question 8



For the polynomial, $x^3 - 4x^2 + ax + b$

- $x - 1$ is a factor
- -12 is the remainder when it is divided by $x - 2$

(a) Determine the values of a and b . 5

(b) Hence solve $x^3 - 4x^2 + ax + b = 0$. 3

Answers:

(a) $a = -7, b = 10$

(b) $x = 1, x = -2, x = 5$