

(C2-1.5) Name:

Homework Questions 5 – Factor Theorem

Use the factor theorem to show that the following are factors, and hence fully factorise.

a) $(x - 3)$ is a factor of $x^3 - 3x^2 - 4x + 12$

b) $(x + 2)$ is a factor of $x^3 - 3x^2 - 6x + 8$

c) $(x + 1)$ is a factor of $x^3 + 8x^2 + 19x + 12$

d) $(x - 2)$ is a factor of $x^3 - 4x^2 - 11x + 30$

e) $(x + 3)$ is a factor of $x^3 + 2x^2 - 5x - 6$