

(C2-1.6a) Name:

Homework Questions 6 – Finding Remainder Using Factor Theorem

Find the remainder when the following polynomial is divided by:-

a) $3x^3 - 2x^2 + 5x - 12$ by $(x - 1)$

-6

b) $7x^3 - 5x^2 + 12x + 16$ by $(x + 2)$

-84

c) $6x^3 + 4x^2 - 9x + 10$ by $(x + 1)$

17

d) $5x^5 - 4x^3 + 2x^2 - 8x + 11$ by $(x + 3)$

-1054

e) $7x^4 + 7x^3 - 6x^2 + 9x + 2$ by $(x - 2)$

164

f) $5x^3 - 5x^2 + 9x + 12$ by $(x + 1)$

-7

g) $7x^4 - 4x^3 + 5x^2 - 6x + 15$ by $(x + 2)$

191

h) $4x^3 + 6x^2 + 3x + 4$ by $(x - 3)$

175

i) $7x^4 - 9x^3 - 8x^2 - 7x + 5$ by $(x - 1)$

-12

j) $6x^5 + 4x^3 + 2x^2 - x - 4$ by $(x - 3)$

1577