

## Remainder Theorem

### PRACTICE QUESTIONS (EXAM TYPE)

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1) Given  $f(x) = 2x^3 - 8x^2 + 4$

Determine the remainder if  $f(x)$  is divided by  $(x-2)$ .

2) The expression  $2x^3 - 17x^2 + ax + b$  has a remainder of  $-9$  when it is divided by  $x-1$  and the remainder of  $15$  when it is divided by  $x-5$ .

Use the remainder theorem to determine the values of  $a$  and  $b$ .

3) If  $f(x) = 2x^3 + px^2 + 5x + 6$  is divided by  $x-2$ , it leaves a remainder of  $-20$ .  
Determine the value of  $p$ .