

p 141 - 35.1)  $f(x) = x^3 + ax^2 + bx + 8$  :  $(x-2)$ ,  $(x+1)$  is factors

$\Rightarrow f(2) = 0$  ;  $x-2$  is factor

$$\therefore \cancel{2^3 + a(2)^2 + b(2) + 8 = 0}$$

$$2^3 + a(2)^2 + b(2) + 8 = 0$$

$$8 + 4a + 2b + 8 = 0$$

$$4a + 2b = -16$$

$$\therefore 2a + b = -8 \quad \text{--- (1)}$$

$f(-1) = 0$  ;  $x+1$  is factor.

$$\therefore (-1)^3 + a(-1)^2 + b(-1) + 8 = 0$$

$$-1 + a - b + 8 = 0$$

$$a - b = -7 \quad \text{--- (2)}$$

$$a = b - 7 \quad \text{--- (2)}$$

Replace (2) in (1)

$$\therefore 2(b-7) + b = -8$$

$$2b - 14 + b = -8$$

$$3b = 6$$

$$b = 2$$

Replace  $b = 2$  in (2)

$$\therefore a = 2 - 7 = -5$$