



(iii) Hence find the values of  $a$  and  $b$ .

|                      |                     |
|----------------------|---------------------|
| $② + 3① \Rightarrow$ | $32a = -96$         |
|                      | $\therefore a = -3$ |
| Now $① \Rightarrow$  | $b = 17$            |

(1 mark)

(c) Write the polynomial  $P(x)$  as a product of a real linear factor and a real quadratic factor.

|                          |
|--------------------------|
| $P(x) = (x-3)(x^2+4x+5)$ |
|                          |
|                          |

(1 mark)