

8. Factorise the polynomial $p(z) = z^4 + 3z^3 - 6z^2 - 29z - 21$

i) over \mathbb{R} ;

ii) over \mathbb{C} .

$$z^4 + 3z^3 - 6z^2 - 29z - 21 = 0$$

$$z = -1$$

$$z^3 + 2z^2 - 8z - 21 = 0$$

$$z = 3$$

$$x^2 + 5x + 7 = 0$$

$$x = \frac{-5 \pm i\sqrt{3}}{2}$$

	1	3	-6	-29	-21
-1	1	2	-8	-21	0
3	1	5	7	0	