

$$(x^2+x+1) \cdot (x-1) = x^3 + x^2 + x - x^2 - x - 1$$

$$= x^3 - 1$$

$$(x+1)^2 = x^2 + 2x + 1$$

$$(x+1)(x-1) = x^2 - x + x - 1$$

$$= x^2 - 1$$

④ $z = 2 + 3i$

$$z(2,3) \Rightarrow |z| = \sqrt{2^2 + 3^2} = \sqrt{4+9} = \sqrt{13}$$

$$z(0,1) \Rightarrow |z| = \sqrt{0^2 + 1^2} = \sqrt{0+1} = \sqrt{1} = 1$$

$$(2+3i) + (1+i) = \cancel{(2+3+1+3i)} = \cancel{(6+4i)} =$$

$$(3,4) = 3 + 4i$$

$$z(3,4) = |z| = \sqrt{3^2 + 4^2} = \sqrt{9+16} = \sqrt{25}$$

$$= 5$$

$$(1+i) + (1-i) = (2,0) \Rightarrow |z| = \sqrt{2^2 + 0^2} = \sqrt{4} = 2$$