

$$a) \quad z = (x+yi)^2 = x^2 + 2xyi - y^2$$

$$\operatorname{Re}(z) = x^2 - y^2, \quad \operatorname{Im} z = 2xy$$

$$b) \quad z = (x+yi)^4 = x^4 + 4x^3yi - 6x^2y^2 - 4xy^3i + y^4$$

↑
"häftjobb" eller binomialformeln
↑
mult fyra parenteser.

$$\operatorname{Re}(z) = x^4 - 6x^2y^2 + y^4$$

$$\operatorname{Im}(z) = 4x^3y - 4xy^3$$