

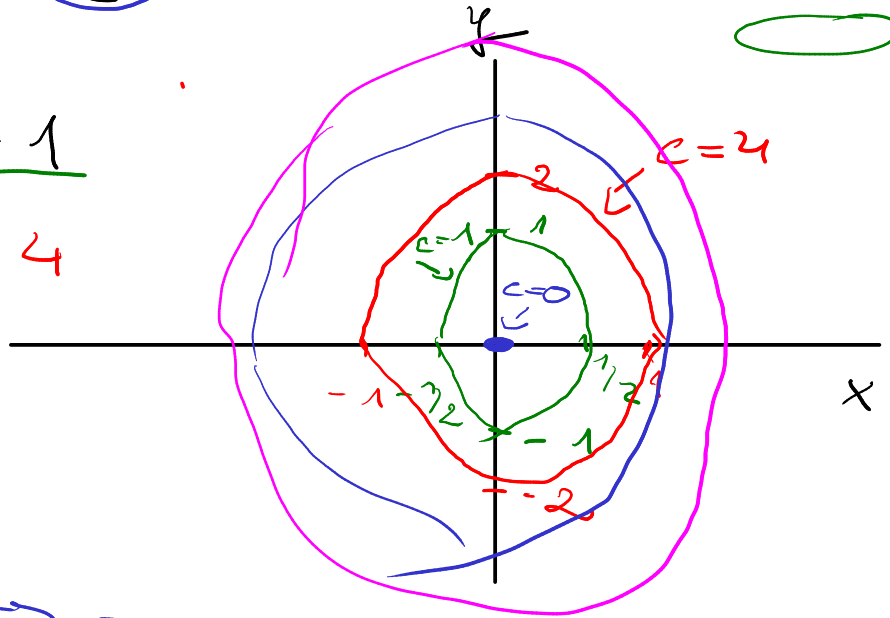
$$f(x, y) = 4x^2 + y^2$$

$$(4) \quad 4x^2 + y^2 = c$$

$$(1a) \quad \underline{4x^2 + y^2 = 1}$$

$$(1b) \quad 4x^2 + y^2 = 4$$

0
0



$$c > 0$$

$$c = 0$$

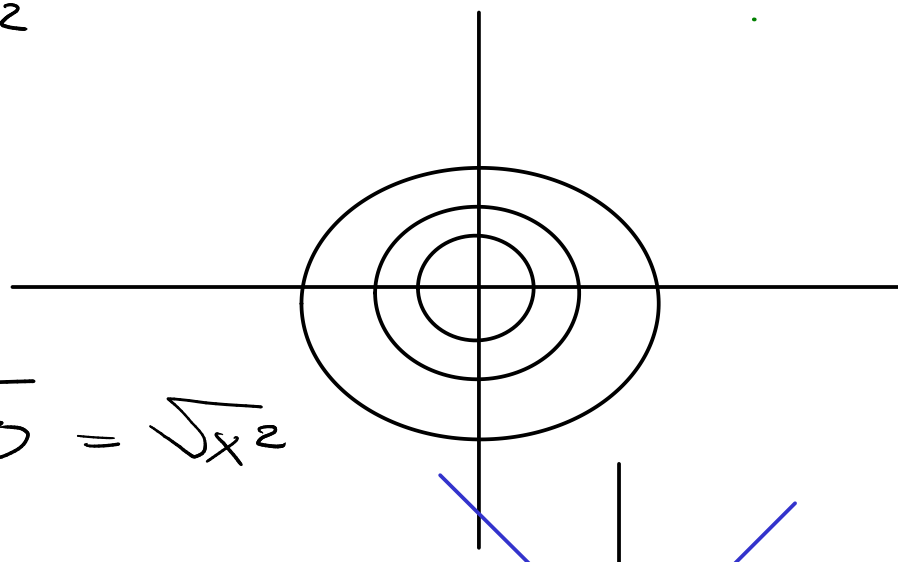
$$4x^2 + y^2 = 0 \rightarrow [0, 0]$$

$$f(x, y) = \sqrt{x^2 + y^2}$$

cross sections

• $y = 0$

$$f(x, 0) = \sqrt{x^2 + 0} = \sqrt{x^2} = |x|$$



• $x = 0$

$$\sqrt{0^2 + y^2} = \sqrt{y^2} = |y|$$

