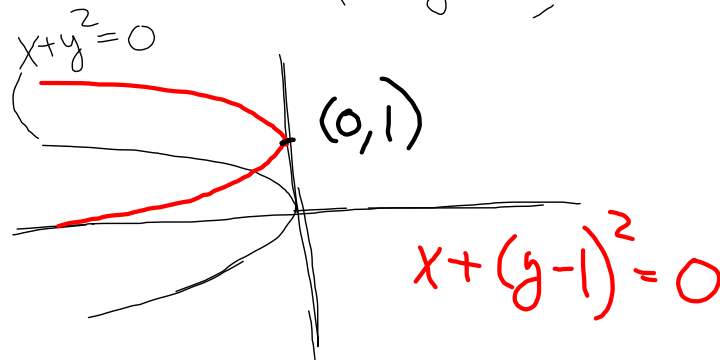


§1.1 # 43.

bottom half of $x + (y-1)^2 = 0$

1st do (get rid of the -1 to just get started)
 $x + y^2 = 0$ or $y^2 = -x$



$$-y^2 = x$$

(note if $y=1$,

we get
 $x + (0)^2 = 0$
 $\Rightarrow x=0$

and the point $(0,1)$ is on the graph

Algebraic approach

$$x + (y-1)^2 = 0$$

$$(y-1)^2 = -x \quad (\text{need } x \leq 0)$$

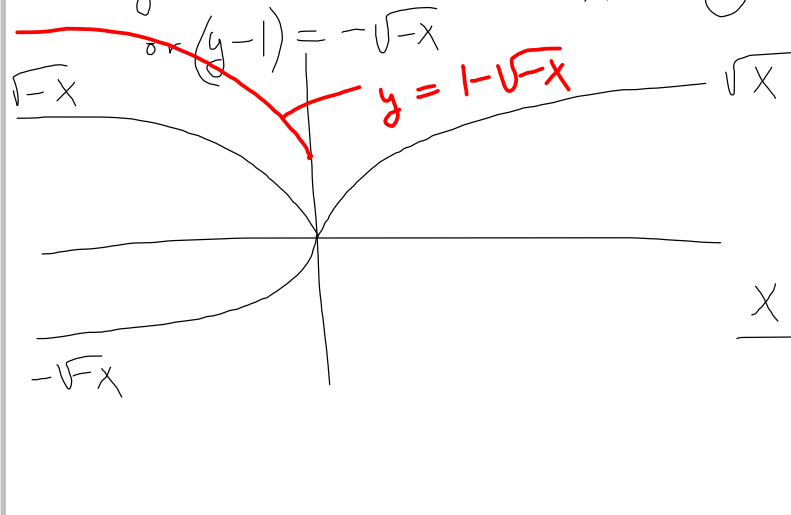
$$y-1 = \pm \sqrt{-x}$$

$$y-1 = -\sqrt{-x}$$

we want
bottom

$$y = 1 - \sqrt{-x}$$

$$x \leq 0$$



general shifting : 1,2.

Defⁿ

A function f is increasing

on an interval I

if

$$f(x_1) < f(x_2)$$

whenever $x_1 < x_2$ in I

A function $f(x)$ is
(strictly)
decreasing on an interval

I if

$$f(x_1) > f(x_2)$$

whenever $x_1 < x_2$ in I