

$$(iii) \quad f(x) = 1 - \sqrt{x+1}$$

(12)

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

Step 2 Solve for x in terms of y

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

$$(y-1)^2 = (-\sqrt{x+1})^2 = x+1$$

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

Step 3

~~Interchange~~ x & y
~~switch~~

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

domain

$$(-\infty, 1]$$

"

range of f

range

$$[-1, \infty)$$

"

domain of f