

(18)

$$f(x) = \frac{4}{2-x}, x \neq 2$$

$$y = \frac{4}{2-x}$$

$$(2-y)x = \left(\frac{4}{2-y}\right)(2-y)$$

$$\begin{array}{r} 2x - xy = 4 \\ -2x \end{array}$$

$$\begin{array}{r} -xy = 4 - 2x \\ -x \end{array}$$

$$y = \frac{2x-4}{x}$$

$$f^{-1}(x) = \frac{2x-4}{x}, x \neq 0$$

(19)

$$f(x) = \frac{3x}{x+2}, x \neq -2$$

$$y = \frac{3x}{x+2}$$

$$(y+2)x = \left(\frac{3y}{y+2}\right)(y+2)$$

$$\begin{array}{r} xy + 2x = 3y \\ -3y - 2x \end{array}$$

$$xy - 3y = -2x$$

$$\begin{array}{r} y(x-3) = -2x \\ x-3 \end{array}$$

$$y = \frac{-2x}{x-3}, x \neq 3$$

$$f^{-1}(x) = \frac{-2x}{x-3}, x \neq 3$$

(20)

$$f(x) = \frac{3x+1}{-x}, x \neq 0$$

$$y = \frac{3x+1}{-x}$$

$$(-y)x = \frac{3y+1}{-y}(-y)$$

$$\begin{array}{r} -xy = 3y+1 \\ -3y \end{array}$$

$$-xy - 3y = 1$$

$$\begin{array}{r} -y(x+3) = 1 \\ -(x+3) \end{array}$$

$$y = -\frac{1}{x+3}$$

$$f^{-1}(x) = -\frac{1}{x+3}, x \neq -3$$