

2. (1) $\frac{3-x}{x-1} = 0$

$x = 3$ (3, 0)

(2) $\frac{8x}{2x-1} = 2x+3$

$8x = (2x+3)(2x-1)$

$(2x+1)(2x-3) = 0$

$x = -\frac{1}{2}, \frac{3}{2}$

よって $(-\frac{1}{2}, 2), (\frac{3}{2}, 6)$

3. (1) $\frac{2x-1}{x+1} = -1$

$2x-1 = -x-1$

$x = 0$

(2) $\frac{4x}{x-3} = x-3$

$4x = (x-3)^2$

$x^2 - 10x + 9 = 0$

$(x-1)(x-9) = 0$

$x = 1, 9$

(3) $\frac{3}{x-2} > x$

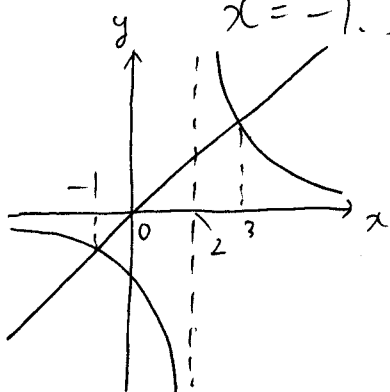
交点の座標は

$\frac{3}{x-2} = x$

$x^2 - 2x - 3 = 0$

$(x+1)(x-3) = 0$

$x = -1, 3$

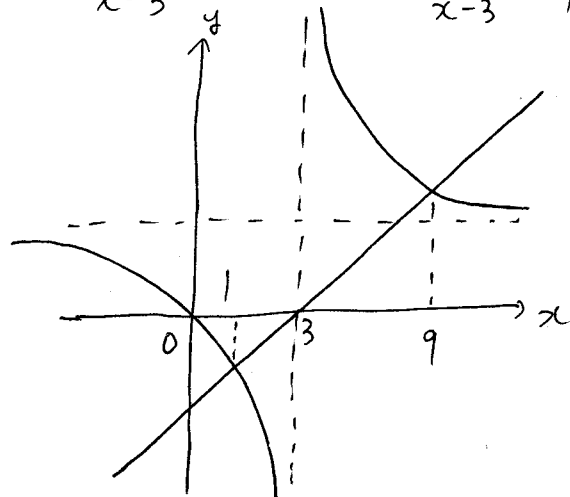


$x > 3$

$x < -1$

$2 < x < 3$

(4) $\frac{4x}{x-3} \leq x-3$ $\frac{12}{x-3} + 4$



$x > 3$

$1 \leq x < 3, 9 \leq x$

4.

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

$$= \frac{-(x-3)-2}{x-3}$$

$$= -\frac{2}{x-3} - 1$$

漸近線の交点は (3, -1)

$$y = \frac{2x}{x+1}$$

$$= \frac{2(x+1)-2}{x+1}$$

$$= -\frac{2}{x+1} + 2$$

漸近線の交点は (-1, 2)

よて、x軸方向に -4、y軸方向に 3 平行移動すれば重なる。

5. $y = \frac{k}{x-2} + 1$ が点 (1, 0) を通るので

$$0 = \frac{k}{-1} + 1$$

$$k = 1$$

よて $y = \frac{1}{x-2} + 1$

$$= \frac{1+x-2}{x-2}$$

$$y = \frac{x-1}{x-2}$$
