

$$11) f(x) = \frac{x-7}{\sqrt{5-x}}$$

$$5-x > 0 \quad 5-x \neq 0$$

$$5 > x$$

$$x < 5$$

$$(-\infty, 5)$$

$$13) a(t) = \frac{3t}{t\sqrt{t-5}}$$

$$\text{hole @ } t=0 \quad t-5 > 0$$

$$t > 5$$

$$(5, \infty)$$

$$1) \text{ Domain: } (-\infty, 3) \cup (3, \infty)$$

$$f(x) = \frac{x}{x-3} \quad \text{H.A. } y=1$$

$$\text{Range: } (-\infty, 1) \cup (1, \infty)$$

$$15) g(w) = \frac{7}{5-\sqrt{w}}$$

$$w \geq 0 \quad 5-\sqrt{w} \neq 0$$

$$(5)^2 \neq (\sqrt{w})^2$$

$$25 \neq w$$

$$D: [0, 25) \cup (25, \infty)$$

$$17) g(x) = \frac{x}{|x|-3}$$

$$|x|-3 \neq 0$$

$$|x| \neq 3$$

$$x \neq 3, -3$$

$$D: (-\infty, -3) \cup (-3, 3) \cup (3, \infty)$$

$$9) f(x) = \frac{2}{x^2+4}$$

$$x^2+4 \neq 0$$

$$x^2 \neq -4$$

$$D: (-\infty, \infty)$$

$$19) a(t) = (t-4)\sqrt{t}$$

$$t \geq 0$$

$$[0, \infty)$$

$$27) f(x) = \frac{1}{x^2+1}$$

$$x^2+1 \neq 0$$

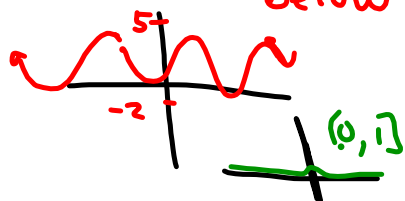
$$x^2 \neq -1$$

$$D: (-\infty, \infty)$$

Suppose

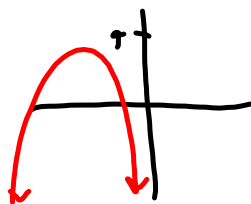
$$R: [-2, 5]$$

Bounded  
above &  
below



$$R: (-\infty, 4]$$

bounded  
above



$$R: [-1, \infty)$$

bounded  
below

