

P 194 # 29, 31, 37, 41, 53, 62

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

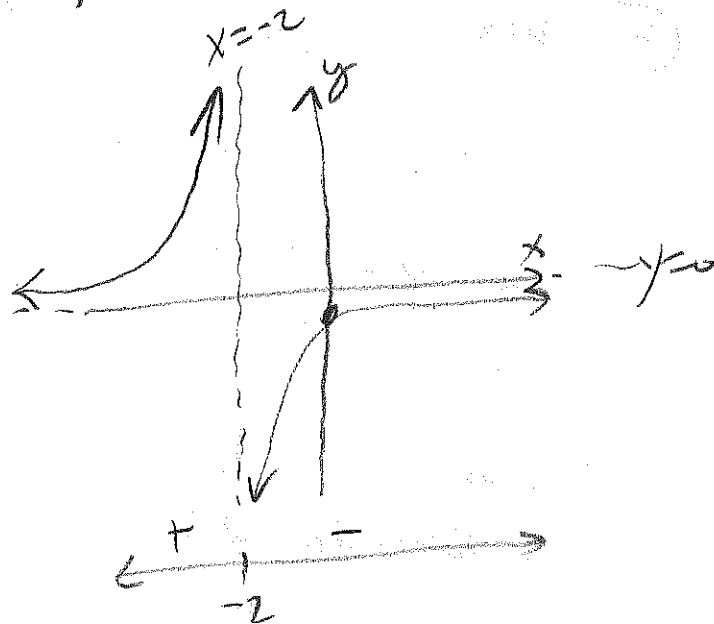
D: $\{x \mid x \neq -2\}$

VA: $x = -2$

HA: $y = 0$

x-int: none

y-int: $(0, -\frac{1}{2})$



(31) $c(x) = \frac{5+2x}{1+x}$

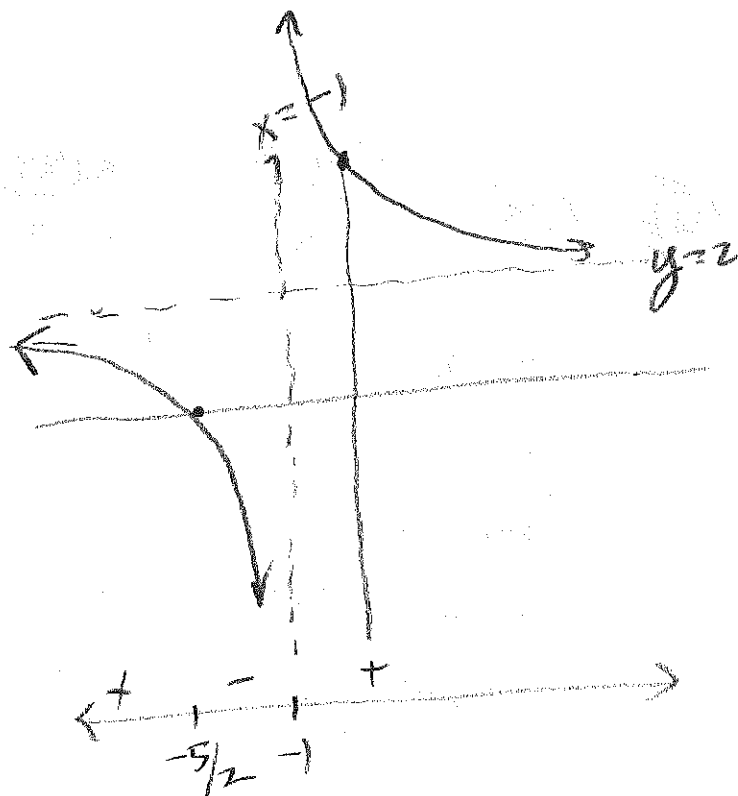
D: $\{x \mid x \neq -1\}$

VA: $x = -1$

HA: $y = 2$

x-int: $(-\frac{5}{2}, 0)$

y-int: $(0, 5)$



$$\textcircled{37} \quad h(x) = \frac{x^2 - 5x + 4}{x^2 - 4} = \frac{(x-4)(x-1)}{(x+2)(x-2)} \quad \text{---} \quad \frac{(-4)(-1)}{2(-2)} = \frac{4}{-2}$$

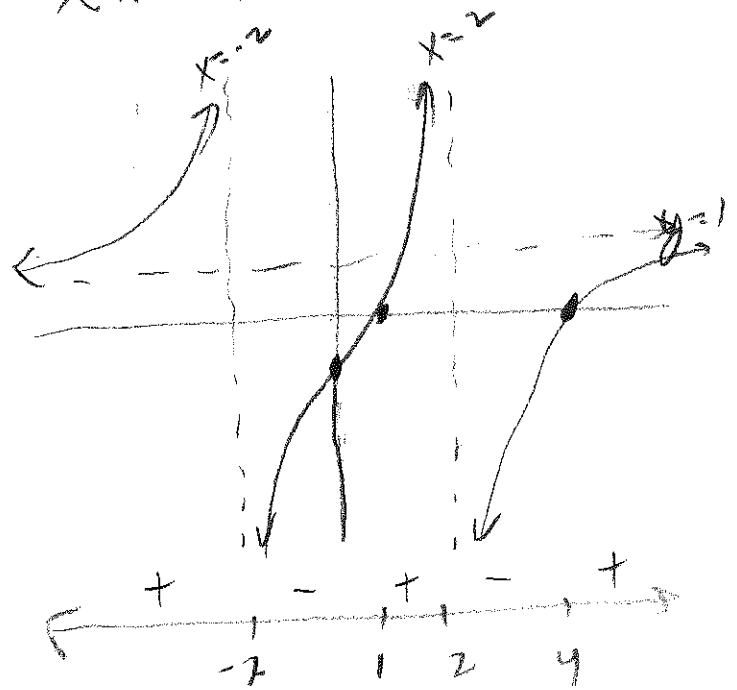
$$D: \{x \mid x \neq -2, x \neq 2\}$$

$$VA: x = -2, x = 2$$

$$HA: y = 1$$

$$x\text{-int: } (4, 0), (1, 0)$$

$$y\text{-int: } (0, -1)$$



$$\textcircled{41} \quad f(x) = \frac{x^2 + 3x}{x^2 + x - 6} = \frac{x(x+3)}{(x+3)(x-2)} \quad \text{Hole @ } -3$$

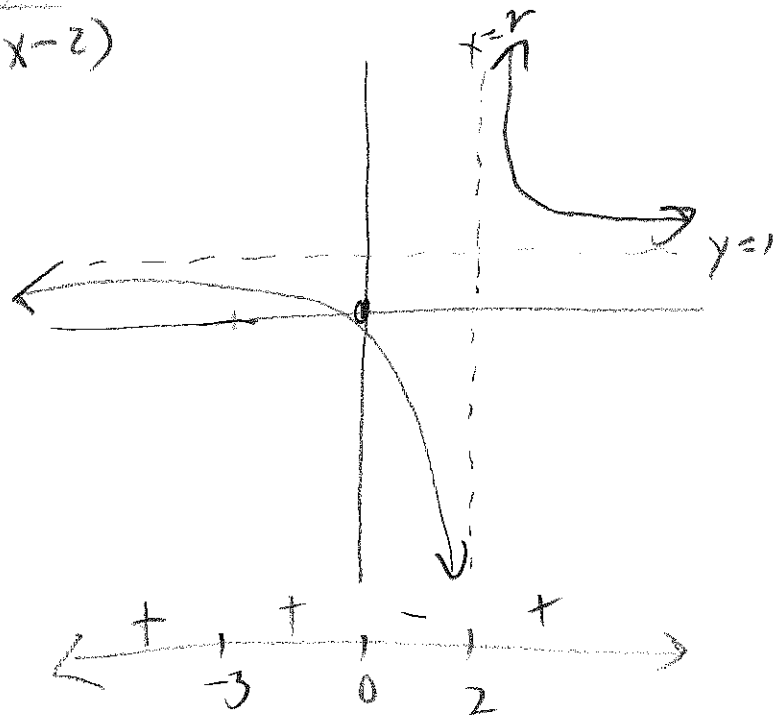
$$D: \{x \mid x \neq -3, 2\}$$

$$VA: x = 2$$

$$HA: y = 1$$

$$x\text{-int: } (0, 0)$$

$$y\text{-int: } (0, 0)$$



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

D: $\{x \mid x \neq 0\}$

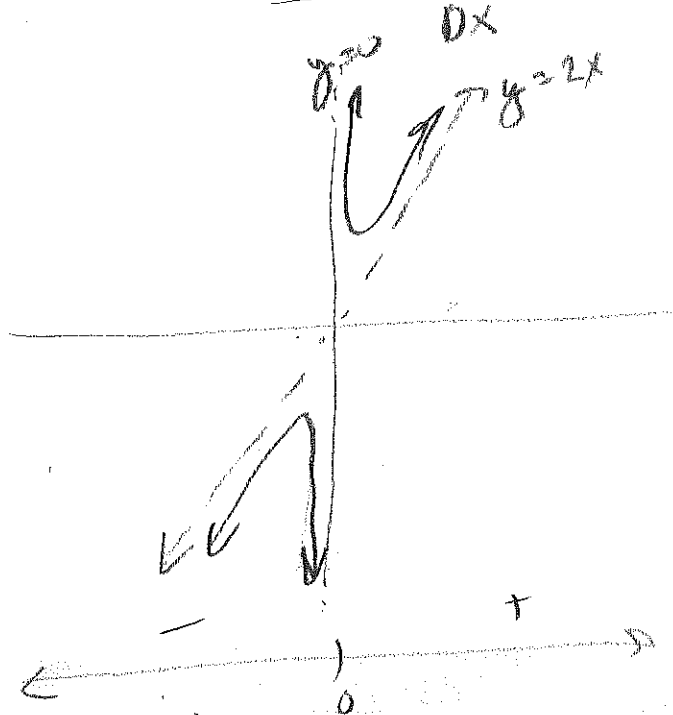
VA: $x=0$

SA: $y=2x$

x-int: none

y-int: none

$$x \overline{) \begin{array}{r} 2x \\ 2x^2 + 0x \\ -2x^2 \end{array}}$$



62) $f(x) = \frac{2x^2-5x+5}{x-2}$

D: $\{x \mid x \neq 2\}$

VA: $x=2$

SA: $y=2x-1$

x-int: none

y-int: $(0, -\frac{5}{2})$

$$x-2 \overline{) \begin{array}{r} 2x-1 \\ 2x^2-5x+5 \\ -(2x^2-4x) \\ \hline -x+5 \\ -(-x+2) \\ \hline 3 \end{array}}$$

