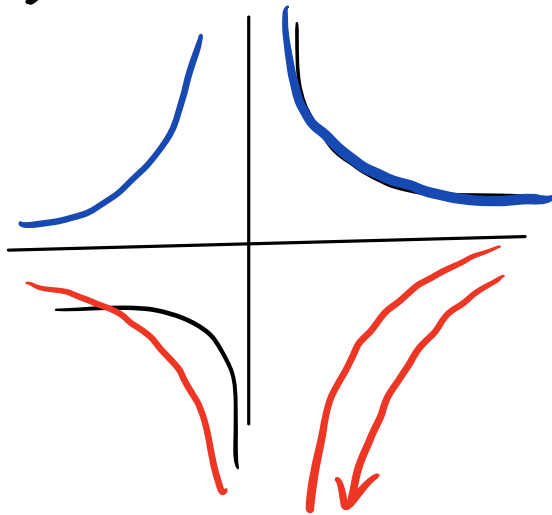
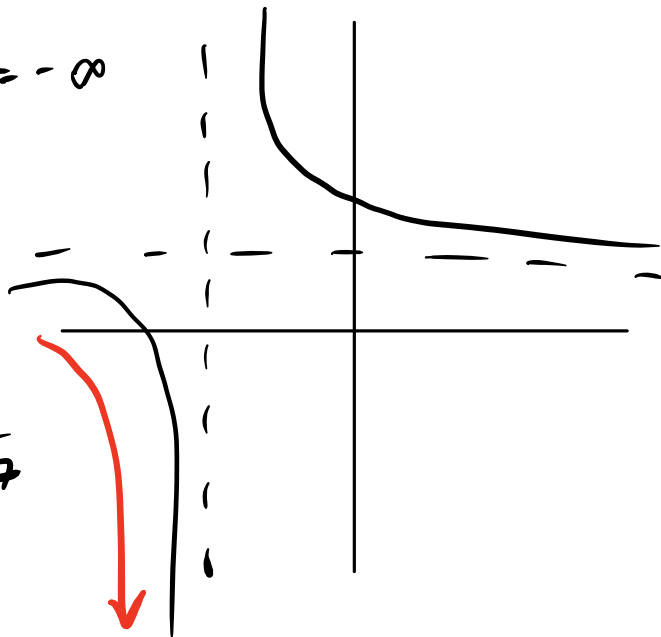


$$2) \lim_{x \rightarrow 0^+} \frac{-28}{x^4} = -\infty$$



$$3) \lim_{x \rightarrow -6^-} \frac{x+8}{x+6} = -\infty$$



$$\lim_{x \rightarrow 1^+} \frac{x+8}{x+6} = \frac{1+8}{1+6} = \frac{9}{7}$$

$$9) f(x) = \begin{cases} x^2 - 12x + 36 & x < 6 \\ x - 5 & 6 \leq x < 8 \\ 6 & 8 < x < 10 \\ 5 & 10 < x \end{cases}$$

$$\lim_{x \rightarrow 5^+} f(x) = \lim_{x \rightarrow 5^+} x^2 - 12x + 36 = 1$$

$$\lim_{x \rightarrow 8^+} f(x) = 6$$

$$\lim_{x \rightarrow 6^-} f(x) = \lim_{x \rightarrow 6^-} x^2 - 12x + 36 = 0$$

$$\lim_{x \rightarrow 9^-} f(x) = 6$$

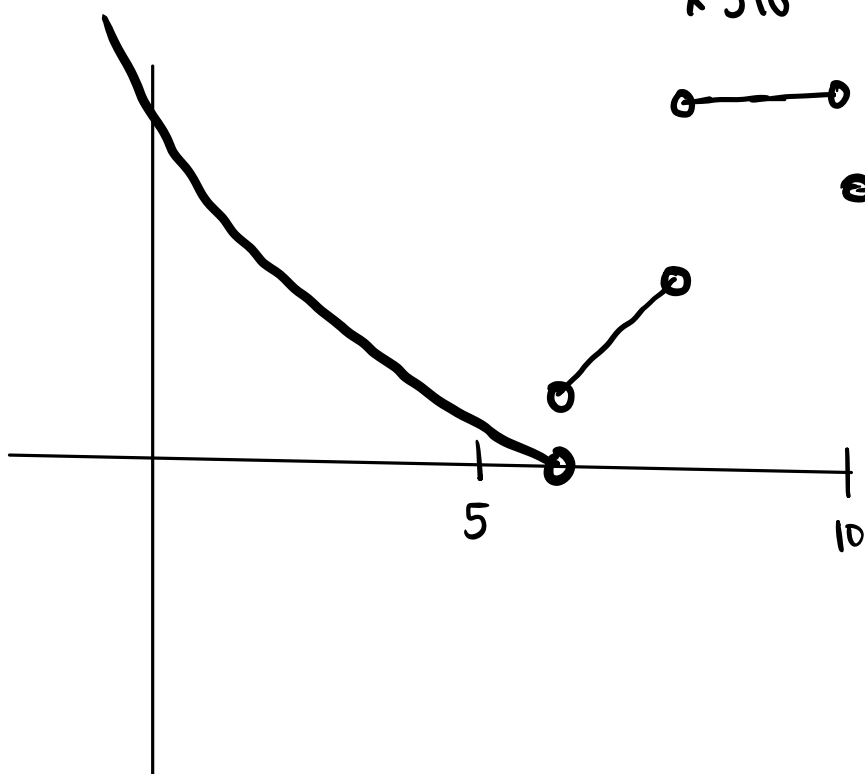
$$\lim_{x \rightarrow 6} f(x) \text{ DNE} \quad \lim_{x \rightarrow 6^+} f(x) = 1 \neq 0$$

$$\lim_{x \rightarrow 10^-} f(x) = 6$$

$$\lim_{x \rightarrow 8^-} f(x) = \lim_{x \rightarrow 8^-} x - 5 = 3$$

$$\lim_{x \rightarrow 10^+} f(x) = 5$$

$$\lim_{x \rightarrow 10} f(x) \text{ DNE} \quad 6 \neq 5$$



$$x^2 - 12x + 36 \\ (x - 6)^2$$