

$$4/0 \quad y = \frac{(x-2)(8-x)}{x^2} = \frac{-x^2+10x-16}{x^2}$$

(1) $x \neq 0$ (2) $(2,0)$ $(8,0)$

(2) $\lim_{x \rightarrow 0^+} \frac{16}{+0} = +\infty \rightarrow \boxed{x=0}$

$m = \lim_{x \rightarrow +\infty} \frac{(x-2)(8-x)}{x^2} = 0$ $n = \lim_{x \rightarrow +\infty} \frac{(x-2)(8-x)}{x^2} = -1 \rightarrow \boxed{y=-1}$

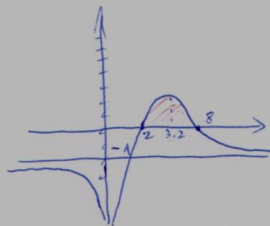
(4-5) $y' = \frac{(-2x+10)x^2 - 2x(-x^2+10x-16)}{x^4} = \frac{-10x^2+32x}{x^4} = \frac{-10x+32}{x^3}$

$x = 3.2$ $\frac{1}{-0} \quad \frac{1}{3.2} \rightarrow$

$0 < x < 3.2$ $\frac{1}{\text{inf}}$
 $x < 0, x > 3.2$ $\frac{1}{\text{inf}}$

max $(3.2, \frac{9}{10})$

(6)



(7) $\int_2^4 \frac{-x^2+10x-16}{x^2} dx = \int_2^4 \left(-1 + \frac{10}{x} - \frac{16}{x^2}\right) dx = -x + 10 \ln|x| + \frac{16}{x} \Big|_2^4 =$

$(-4 + 10 \ln 4 + 4) - (-2 + 10 \ln 2 + 8) = 20 \ln 2 - 6 - 10 \ln 2 = 10 \ln 2 - 6$