3.9

(5) (a) $f^{-1}(x) = -\frac{\ln x}{5}$ $\{x \mid x > 0\}$ $\{y \mid y \in \mathbb{R}\}$

(b) $f^{-1}(x) = 1 + \frac{\ln x}{\ln 3}$ $\{x \mid x > 0\}$ $\{y \mid y \in \mathbb{R}\}$

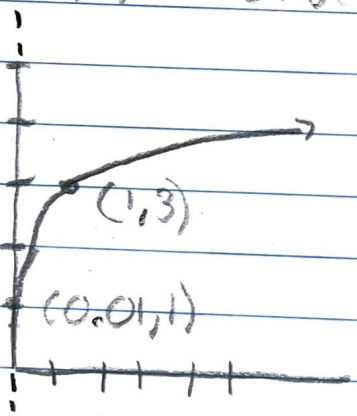
(c) $f^{-1}(x) = \frac{e^x}{2}$ $\{y \mid x \in \mathbb{R}\}$ $\{y \mid y > 0\}$

(d) $f^{-1}(x) = 2^x + 3$ $\{x \mid x \in \mathbb{R}\}$ $\{y \mid y > 3\}$

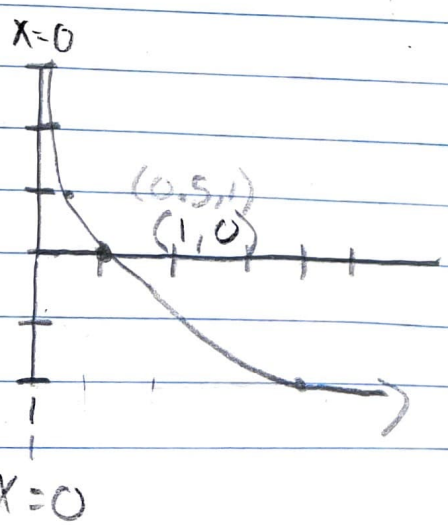
3.10

(1) For $x > 0$ and $b > 1$ it is increasing

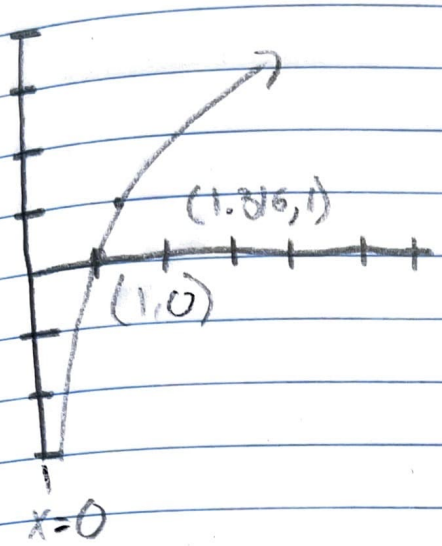
(2) (a)



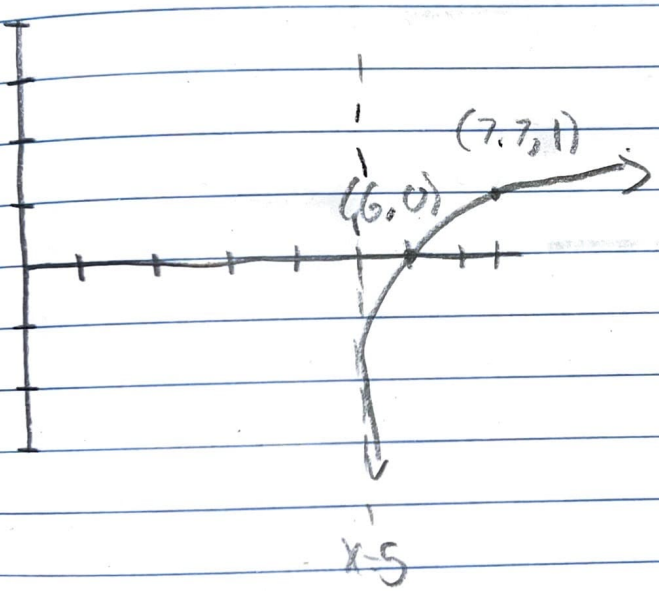
(b)



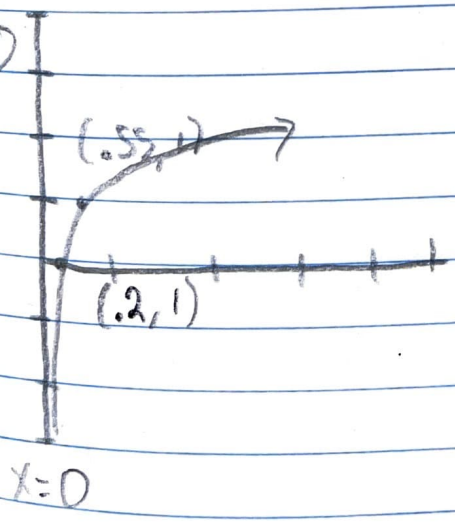
c)



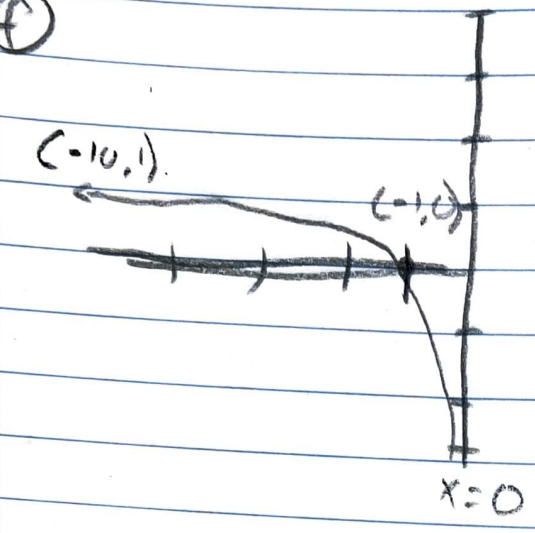
d)



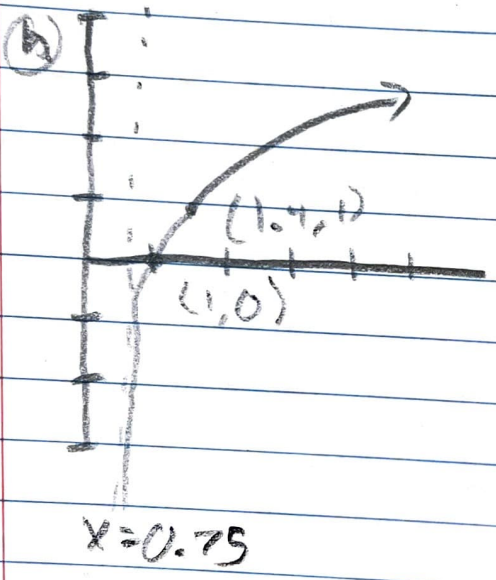
e)



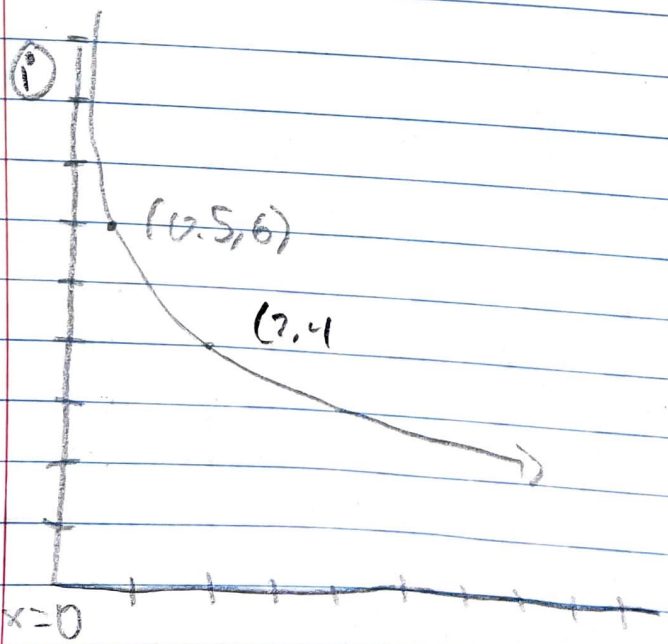
(f)



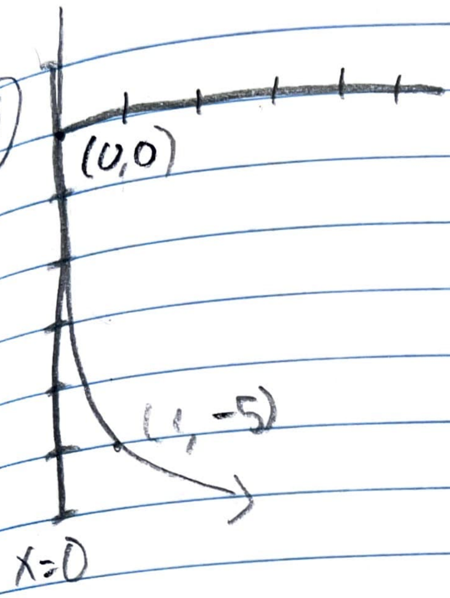
(h)



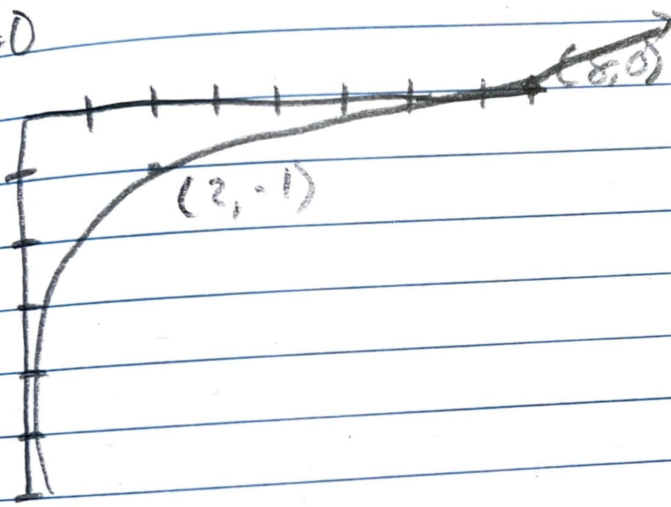
(i)



(i)



3 (a)



(b) same as A

(c) $y = \frac{1}{2}\log_2 x - \frac{3}{2}$