

Increasing and decreasing functions

4.2.1

a) Increasing on $(-\infty, \frac{1}{4}]$; decreasing on $[\frac{1}{4}, +\infty)$

b) Increasing on $(-\infty, -1]$; decreasing on $[-1, 3]$; increasing on $[3, +\infty)$

(c)

decreasing on $(-\infty, \ln \frac{1}{2}]$, increasing on $[\ln \frac{1}{2}, \infty)$

(d)

increasing on $[0, \frac{2\pi}{3}]$ and on $[\frac{4\pi}{3}, 2\pi]$

decreasing on $[\frac{2\pi}{3}, \frac{4\pi}{3}]$