

Interval	$(-\infty, -\sqrt{2})$	$\left(-\sqrt{2}, -\frac{\sqrt{6}}{3}\right)$	$\left(-\frac{\sqrt{6}}{3}, 0\right)$	$\left(0, \frac{\sqrt{6}}{3}\right)$	$\left(\frac{\sqrt{6}}{3}, \sqrt{2}\right)$	$(\sqrt{2}, \infty)$
Sign $f'(x)$	$-$	$+$	$+$	$-$	$-$	$+$
Sign $f''(x)$	$+$	$+$	$-$	$-$	$+$	$+$