

Practice test 3B

③ $f(x) = (x+1)^2(x-2)$ using product rule

$$f'(x) = [2(x+1)](x-2) + (x+1)^2 = 0$$

$$= (x+1) [2(x-2) + (x+1)]$$

$$= (x+1) [2x - 4 + x + 1]$$

$$= (x+1)(3x - 3) = 0$$

$$x = -1, x = 1$$

TEST $f'(x)$ $(-\infty, -1)$ $(-1, 1)$ $(1, \infty)$

$f'(-2) > 0$ $f'(0) < 0$ $f'(2) > 0$

inc \uparrow

dec \downarrow

inc \uparrow

$x = -1$
max

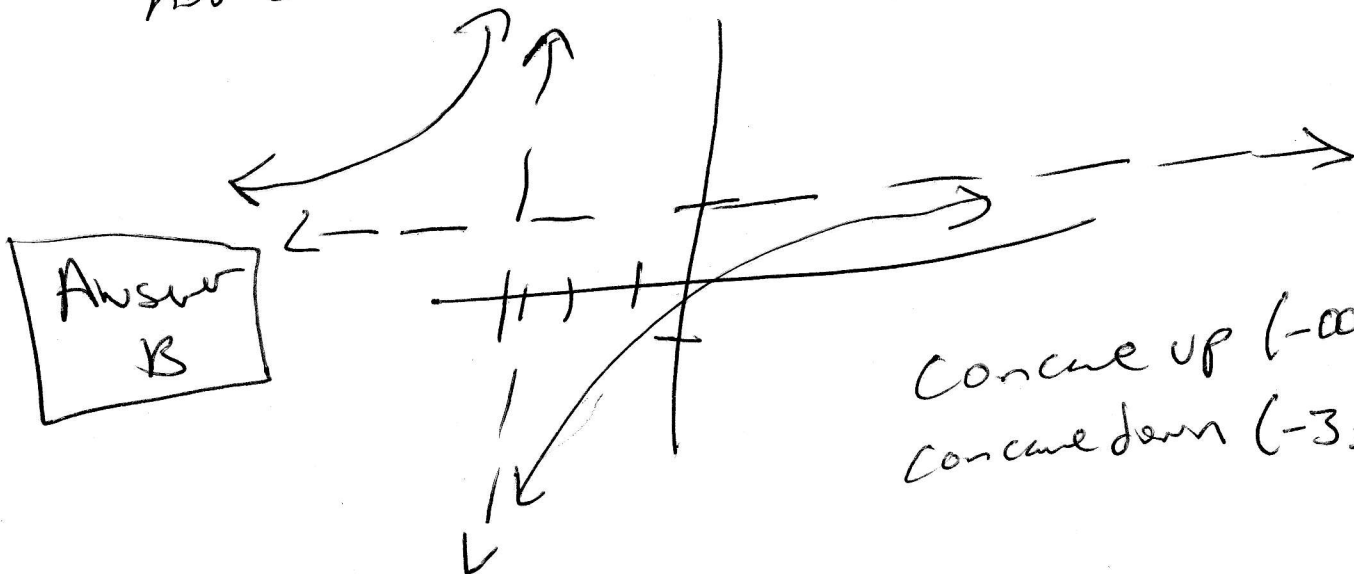
$x = 1$
min

Answer
A

④ Graph on calculator

vertical asymptote $x+3=0$ $x=-3$

horizontal asy. $\lim_{x \rightarrow \infty} \frac{x+1}{x+3} = 1$ $y=1$



Answer
B