

Exercise 34

Determine the infinite limit.

$$\lim_{x \rightarrow 3^-} \frac{\sqrt{x}}{(x-3)^5}$$

Solution

Since x goes to 3 from the left, the numerator is positive and the denominator is negative. Therefore,

$$\lim_{x \rightarrow 3^-} \frac{\sqrt{x}}{(x-3)^5} = -\infty.$$

