

Properties of Limits Exercises

If $\lim_{x \rightarrow -8} f(x) = -3$, then evaluate the following using the properties of limits.

a) $\lim_{x \rightarrow -8} \frac{1}{f(x)}$

b) $\lim_{x \rightarrow -8} \left[3 + [4f(x)]^2 \right]$

c) $\lim_{x \rightarrow -8} \frac{5 - f(x)}{21 + f(x)}$

d) $\lim_{x \rightarrow -8} \left[\sqrt{x+9} + \frac{4}{f(x)-1} \right]$

Answers: a) $-\frac{1}{3}$ b) 147 c) $\frac{4}{9}$ d) 0