



Question

If

$$f(x, mx) = \frac{mx}{x^3 + m^3}, \quad g(x, mx) = \frac{m(x+1)}{1+mx},$$

and

$$h(x, mx) = \frac{x^2 + 2x}{2x^2 + x},$$

then which limit can you conclude must exist?

- A. $\lim_{(x,y) \rightarrow (0,0)} f(x, y)$
- B. $\lim_{(x,y) \rightarrow (0,0)} g(x, y)$
- C. $\lim_{(x,y) \rightarrow (0,0)} h(x, y)$
- D. There is not enough information to decide.