

Math 234 Suggested Problems on Limits of Functions of Several Variables

Directions: Find each of the following limits, or show that they don't exist.
Solutions are on the second page.

a. $\lim_{(x,y) \rightarrow (0,0)} \frac{3x^2y^3}{(x^2 + y^2)^2}$

b. $\lim_{(x,y) \rightarrow (0,0)} \frac{x^2y}{2x^3 - y^3}$

c. $\lim_{(x,y) \rightarrow (0,0)} \frac{x^4y}{2x^6 + y^3}$

Solutions

a. 0

b. Does not exist.

c. Does not exist.