1. Consider the function \( f(x, y) = \frac{x^2 y}{x^2 + y^4} \). Find \( \lim_{(x,y) \to (2,1)} f(x, y) \).

2. Make a conjecture about \( \lim_{(x,y) \to (0,0)} f(x, y) \) by finding the limit along at least one line and at least one non-linear curve.