

Beginning of Calculus in 3D

While working in a group make sure you:

- Expect to make mistakes but be sure to reflect/learn from them!
- Are civil and are aware of your impact on others.
- Assume and engage with the strongest argument while assuming best intent.

1. Find (if possible):

$$\lim_{(x,y) \rightarrow (2,1)} \frac{x-2}{x^2y-4y}$$

$$\lim_{(x,y) \rightarrow (0,0)} \frac{1}{x^2+y^2}$$

2. Where is $g(x, y)$ continuous where $g(x, y) = \frac{2}{y-x^2}$.

3. Let $f(x, y) = \frac{y}{x}$. Find $\lim_{\Delta x \rightarrow 0} \frac{f(x + \Delta x, y) - f(x, y)}{\Delta x}$

