

14.2, number 13: **Find** $\lim_{(x,y) \rightarrow (0,0)} \frac{x^2 - 2xy + y^2}{x - y}$.

Answer:

$$\lim_{(x,y) \rightarrow (0,0)} \frac{x^2 - 2xy + y^2}{x - y} = \lim_{(x,y) \rightarrow (0,0)} \frac{(x - y)^2}{x - y} = \lim_{(x,y) \rightarrow (0,0)} (x - y) = \boxed{0}$$