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## Quiz 6

1. Find limit if exists

$$\lim_{(x,y) \rightarrow (0,0)} \text{of } 2x/2x+3y$$

$$y=cx$$

$$2x/2x+3cx$$

$$\lim_{x \rightarrow 0} 0/0 \quad \boxed{\text{DNE}}$$

2.  $\lim_{(x,y) \rightarrow (0,0)} x^5 / x^2 + y^2$

$$y=cx$$

$$x^5 / x^2 + (cx)^2$$

$$\lim_{x \rightarrow 0} x^3 / 1+c^2$$

Limit may exist @  
but is dependent on  $c$ , so  
limit DNE