Answer on Question #73655 – Math – Calculus

Given: $f(t)=4t$ and $g(x,y)=x+y:\ x,y,t\in\mathbb{R}$.

To Find: Find the composite function $f^{\circ}g$ and $g^{\circ}f$.

Solution: The given function is

$$f:\mathbb{R}\to\mathbb{R} \text{ and } g:\mathbb{R}\times\mathbb{R}\to\mathbb{R}$$

The composition fog is possible and the value is

$$(f^{\circ}g)(x,y)=f(g(x,y))=f(x+y)=4(x+y)=4x+4y$$

The composition gof is not possible.

Answer: $(f^{\circ}g)(x,y)=4x+4y,\ (g^{\circ}f)(x,y)$ does not exist.