2.5 Chain Rule

During Monday's lesson we found derivatives using the chain rule. To start, we determined inside and outside functions. Instead of calling these inside and outside functions, we renamed them to u = inside and y = outside. For example, if we had a $f(x)= (2x+5)^2$, we would say that $u = 2x+5$ and $y = (u)^2$. To carry out the chain rule we follow this formula: dy/du * du/dx

Example: f '(x) = 2(2x + 5)^1 * (2) = 4(2x + 5).

In Tuesday's lesson we continued to practice using the chain rule, but adding components from previous lessons. We did this by using the product and quotient rule in conjunction with the chain rule and using the chain rule twice in one function. As we continue to practice, the goal is to mentally figure out the inside and outside functions and eliminate writing u = inside and f(u) = outside.