Name: _____

1. Suppose $f(x) = (x^2 - \pi^2)\cos(x)$.

   (a) $f'(x) =$

   (b) Find the equation of the tangent line to the graph of $f(x)$ at the point $(\pi, f(\pi))$.

2. If $z = \dfrac{5}{w} + \dfrac{\tan(w)}{w+1}$, then $\dfrac{dz}{dw} =$

Name: _____

1. Suppose $f(x) = \dfrac{\sin(x)}{x}$.

   (a) $f'(x) =$

   (b) Find the equation of the tangent line to the graph of $f(x)$ at the point $(\pi, f(\pi))$.

2. If $z = \sqrt{w} + 5(w+1)\sec(w)$, then $\dfrac{dz}{dw} =$