Quiz 1

1. (2 points). Define $f(x) = x^2 + 3$. Expand and simplify

$$\frac{f(x+h) - f(x)}{h}.$$

2. (3 points). Define $f(x) = \frac{x^3 + 8}{x+2}$ and $g(x) = x^2 - 2x + 4$. What are the domains of both f and g, respectively? Are f and g the same function? Why or why not?