

Questions

Determine the difference quotient $\frac{f(x+h) - f(x)}{h}$ for each function f . Simplify each expression until substituting zero for h does not result in $\frac{0}{0}$.

1. $f(x) = -2x + 3$.

2. $f(x) = x^2 - 2x + 3$.

3. $f(x) = 2\sqrt{x+1}$.

4. $f(x) = 3 + \frac{2}{x-1}$.