

### PC 1-5 The Difference Quotient

Students will be able to evaluate and simplify the difference quotient given a function.

Let  $f(x) = 5x - 10$

Evaluate  $\frac{f(x+h)-f(x)}{h}$ ,  $h \neq 0$

In other words, evaluate the difference quotient of the function  $f$ .

Let  $g(x) = -4x^2 + 9x$

Evaluate  $\frac{g(x+h)-g(x)}{h}$ ,  $h \neq 0$

In other words, evaluate the difference quotient of the function  $g$ .

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