

**FAR  
BEYOND**

**MAT122**

**Function Evaluation**



Stony Brook University

# Evaluating a Function

given  $f(x) = x^2 + 3x + 5$

ex. “ $f$  of 2”  
 $f(2) =$

$= 15$  substitute value for  $x$  and simplify

ex.  $f(0) =$

$= 5$

you can also plug in a different variable...

$f(z) = z^2 + 3z + 5$

$f(x+3) =$

$= x^2 + 9x + 23$

$f(-x) =$

$= x^2 - 3x + 5$

$f(x^2) =$

$= x^4 + 3x^2 + 5$

# Evaluating a Function: Do

If  $f(x) = x^2 - 2x + 7$  then evaluate:

$$f(-5) = \boxed{42}$$

$$f(-x) = \boxed{x^2 + 2x + 7}$$

$$f(x-4) = \boxed{x^2 - 10x + 31}$$