

Tuesday: College of the week

Name of the college: Georgia Highlands

What is the yearly tuition?

What are the requirements to be accepted?

ACT:

SAT:

GPA:

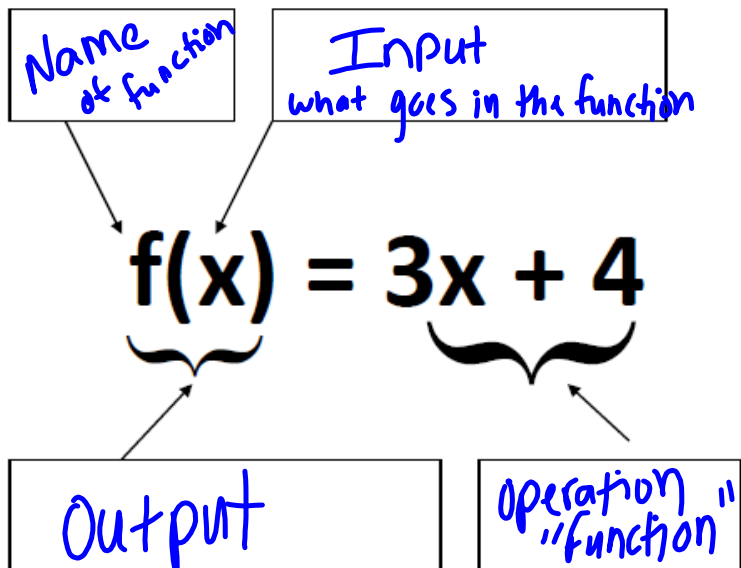
What majors do they offer?

What are the average class sizes?

Male to Female ratio?

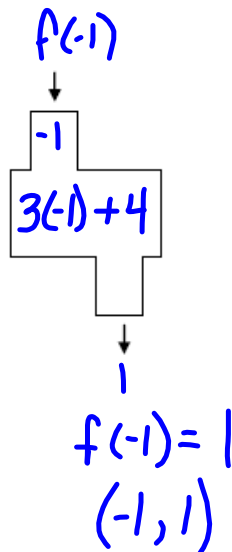
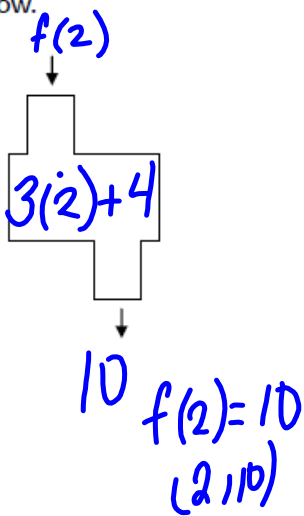
Function Machines & Function Notation

A function can be thought of as a machine that assigns one input to one output



$$f(x) = 3x + 4$$

Find and illustrate $f(2)$ and $f(-1)$ using the function machines below.



Let $f(x) = x^2 + 3$ and $g(x) = x + 1$.

Find the following values:

$$f(3) = (3)^2 + 3 = 12 \quad f(3) = 12$$

$$g(3) = (3) + 1 = 4 \quad g(3) = 4$$

$$f(-2) = (-2)^2 + 3 = 7 \quad f(-2) = 7$$

$$g(0) = (0) + 1 = 1 \quad g(0) = 1$$

$$f(2) + g(1) = (2^2 + 3) + (1 + 1)$$

$$g(-1) + f(1) = ((-1)^2 + 3) + (1 + 1)$$

$$7 + 2 = 9$$

$$(x+1) + (x^2+3)$$

$$f(y) = [(-1)+1] + ((1)^2+3)$$

$$g(w) = 0 + 4 = 4$$

$$f(y) = (y)^2 + 3$$

$$g(w) = (w) + 1 = w + 1$$

$$g(w+5) = (w+5) + 1 = w + 6$$

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

What is the value of $f(5)$?

- A 4
- B 8
- C 10**
- D 16

$$(5)^2 - 3(5)$$
$$25 - 15$$

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

What is $f(3)$?

- A -10
- B -8**
- C 8
- D 10

$$-3(3) + 1$$
$$-9 + 1$$

If $f(x) = 2x - 5$, which expression represents $f(x + 1)$?

- A $2x - 3$
- B $2x - 4$
- C $2x - 5$
- D $2x + 7$

$$2(x+1) - 5$$
$$2x + 2 - 5$$
$$2x - 3$$

11-15

11. Find $(4g - 3h)(6)$
 $4 \cdot g(6) - 3 \cdot h(6)$

12. $(f - g)(10) \rightarrow f(10) - g(10)$

13. $(g + f)(6) \rightarrow g(6) + f(6)$

14. $\left(\frac{g}{h}\right)(-3) \rightarrow g(-3) \div h(-3)$

15. $(g - f)(2) \rightarrow g(2) - f(2)$