

Kerry Ojakian's CSI 35 Class
Class Assignment #0

1. Write some code that assigns 34 to the variable y .

2. Write some code that first assigns 9 to the variable x , then increments x by 2.

3. Write some code that assigns the variable y to be 3 times the value of x .

4. Write a statement that defines the list $[3, 4, 2, 3]$.

5. Write a statement that sets variable x to be the third entry in list L (list indexing starts at 0).

6. Write conditional statment that depends on the value of variable x . If x is positive, then x is set to 1, while if x is negative x is set to -1 .

Side question: What does your statement do if x is zero?

7. Write a statement that sets variable W to be the first entry in a list if the current value W is even, and to the second entry of the list if the current value of W is odd (list indexing starts at 0).

8. Write a for-loop loop that sums the numbers from 1 to 100.

9. Write a while-loop that sums the numbers from 1 to 100.

10. Write a for-loop that sums the numbers in a list.

11. Write a while-loop that sums the numbers in a list.

12. Write the code for a function that takes one input and returns double that input.

13. Write the code for a function that takes one input and returns double that input if the input is positive, and otherwise just returns the given input.
Also - graph this function on the plane.

14. Suppose x and y are integers where $x < y$. Use nested for-loops to print out all the pairs of even integers (a, b) where $x \leq a, b, \leq y$.

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15. Using a while loop and a boolean flag, write a program that finds the first integer divisible by 10, between some positive integers x and y (assume $x < y$).

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16. Using a while loop and a boolean flag and the *isPrime* function, write a program that finds the first prime, between some positive integers x and y (assume $x < y$).
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17. Write the definition of a function which takes a positive integer as input and returns the largest integer that divides it evenly.

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18. Write program to test the claim: The sum of odds is even (test all pairs of evens up to 100)

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19. What do you think the sum of an even and an odd will be? Write program to test your hypothesis.
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