Tutorial

CPSC 217

Functions Can Return a Result

- Returning a result allows a value to move from the function to the location where it was called
  - Accomplished using a return statement inside the function
  - When the function is called it is often on the right side of an assignment statement

Example:

```
# Compute n-factorial using a function

# Compute the value of n factor
# Parameters:
#   n: an integer greater than or equal to 0
# Returns: n-factorial
def factorial(n):
  factor = n
  result = 1
  while factor > 0:
    result = result * factor
    factor = factor - 1

  return result
```

```
# Compute the factorial of a number entered by the user
def main():
  # Read the input from the user
  a = int(input("Enter a non-negative integer: "))

  # Compute the factorial
  result = factorial(a)

  # Display the result
  print("result is", result)

main()
```

Returning Multiple Values

- What if we need to return more than one value from a function?
  - Comma separated tuple of values in return statement
  - Comma separated tuple of variables to the left of the equals sign

Example:

multi_return.py

My PPT slides

- You can find my created PPT slides at the following link:

https://sites.google.com/site/samicsemist/cpsc217win16