



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
```

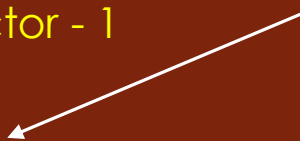
```
    while factor > 0:
```

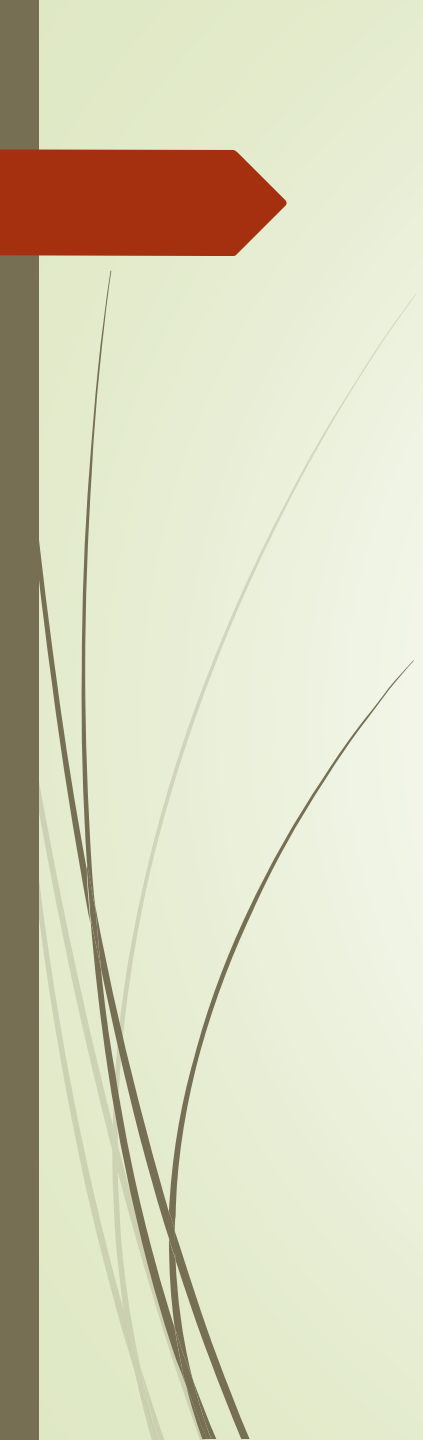
```
        result = result * factor
```

```
        factor = factor - 1
```

```
    return result
```

Return value





```
# 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>