Function Outputs

Function Outputs

- Functions can do more than input values and print them

- They can *evaluate to* variables as well
  - This is used through function outputs

Outputs

```
float interest(float m);
int main(void) {
    float money;
    scanf(“%f”, &money);
    float interest =
interest(money);
    printf(“%f”, interest);
    return 0;
}
float interest(float m) {
    float i = m * 0.05;
    return i;
}
```

- The output of a function is the value that is *returned*
  - This should match the variable type that is listed before the function name

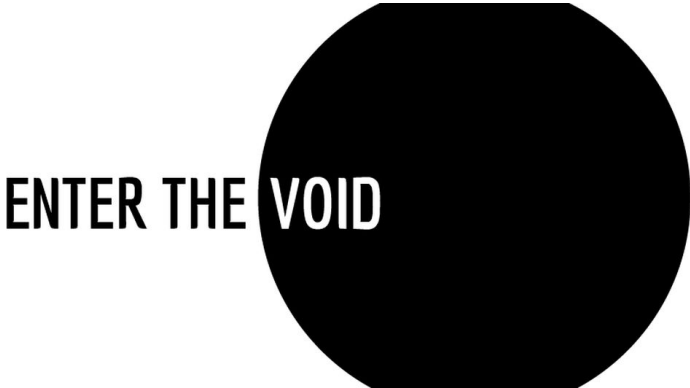
Inputs

```
void print_char(char c);
int main(void);
    char letter = “A”;
    print_char(letter);

    return 0;
}

void print_char(char c);
    printf(“%c”, c);
}
```

- Void functions do not have a return statement
  - They do not return any value to return



Outputs

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float interest(float m);
int main(void) {
    float money;
    scanf(“%f”, &money);
    float interest = interest(money);
    printf(“%f”, interest);
    return 0;
}
float interest(float m) {
    float i = m * 0.05;
    return i;
}
```

- This return statement lets the function be used as a variable
  - Both the function and a variable *evaluate* to a specific value

Outputs

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float interest(float m);
int main(void) {
    float money;
    scanf(“%f”, &money);
    printf(“%f”, interest(money));
    return 0;
}
float interest(float m) {
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Outputs

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float interest(float m);
int main(void) {
    float money;
    scanf(“%f”, &money);
    float interest = interest(money);
    printf(“%f”, interest);
    return 0;
}
float interest(float m) {
    float i = m * 0.05;
    return i;
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```
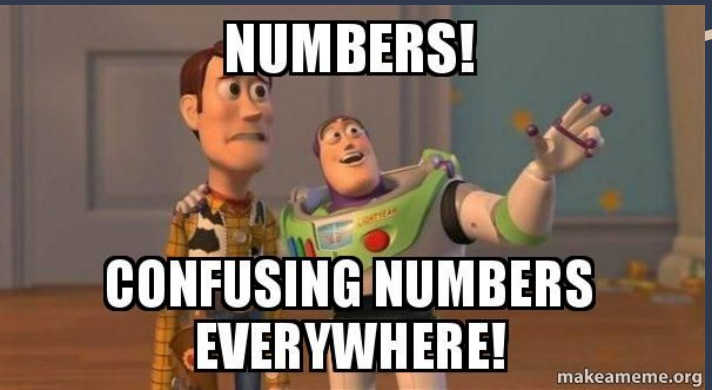

- The return statement is *copied* into a variable in the parent function
  - Similar to function inputs

Function Output Coding Challenge



- Scan in two numbers in main()
- Print out 5 pieces of information about the number
  - 1) Sum
  - 2) Product
  - 3) Greatest Common Factor*
  - 4) The exponent of the first number raised to the last number
  - 5) A box of that specific width and height
- All numbers must be calculated in a function and returned to main()
- All numbers must be printed in main()

- *Some research may be needed