

Constants

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Statements

- These slides introduce constants
- Upon completion: You should be able interpret and code using constants

Constants

- Constant
 - Symbolic representation for a value - name
 - Stored in memory (program)
 - Cannot be modified during execution
- Since it requires space in memory it must have a type to tell the compiler how much space to reserve

Constants

- Constant Types
 - Same as variable types + string
 - Boolean
 - Character
 - Integer
 - Real - Floating Point – default is double
 - Complex - Floating Point – default is double

Constants

- Constant Types
 - String
 - Series of characters enclosed in double quotes
 - “this is a string constant”
 - Special considerations
 - “” – empty string
 - “\0” – null character

Constants

- Defining Constants

- Literal

- un-named constant

- ```
a = b + 5; // 5 is a literal constant
```

- Defined

- Pre-processor constant

- ```
#define INTEREST_RATE 0.01
```

- Note – ALL CAPS – good practice

- Memory

- Similar to a variable but cannot be changed

- *const type identifier = value;*

- ```
const float interestRate = 0.01;
```

- **Only time we will declare and initialize together**