



CSE 3302

Programming Languages

Semantics

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Names



- Names: identify language entities
 - variables, procedures, functions, constants, data types, ...
- Attributes: properties of names
- Examples of attributes:
 - Data type:
`int n = 5;` (data type: integer)
`int` itself is a name
 - Value: (value: 5)
 - Location:
`int* y;`
`y = new int;`
 - Parameters, return value: `int f(int n) {...}`
 - ...

Binding



- **Binding: associating attributes to names**
 - declarations
 - assignments
 - declarations (prototype) and definition of a function
- **The bindings can be explicit or implicit**
e.g. `int x;`
 - Explicit binding: the data type of `x`
 - Implicit binding: the location of `x` (static or dynamic, depending on where the declaration is)