Simple Data Types: as shapes

<table>
<thead>
<tr>
<th>Data types (&amp; class)</th>
<th>Data : variable</th>
<th>Data : constant</th>
</tr>
</thead>
<tbody>
<tr>
<td>int</td>
<td>age 21</td>
<td>Year 1999</td>
</tr>
<tr>
<td>real</td>
<td>radius 12.5</td>
<td>PI 3.14159</td>
</tr>
<tr>
<td>bool</td>
<td>male true</td>
<td>LEAP false</td>
</tr>
<tr>
<td>Str</td>
<td>greet &quot;Hi Mom&quot;</td>
<td>Bye &quot;Sincerely&quot;</td>
</tr>
</tbody>
</table>

Notice the names: meaningful; constants begin uppercase, have underscores
Notice the boxes: different sizes and shapes; NO MIXING ALLOWED!

**int type** (integer, whole)
comes from counting

- 21 age
- 0 count
- 19683 population
- -20 centsProfit
- 5280 FEET_PER_MILE
- 7 Days_in_Week
- 2 dayOfTheWeek
- 100 Max_Size

**real type** (float, double)
comes from measuring

- 98.6 bodyTemperature
- 0.0 minimumTemperature
- 0.55 metersLong
- 123.45 dollarsProfit
- 3.281 FEET_PER_METER
- 0.3048 Meters_Per_Foot
- 123.456789 diameter
- 4.0 meanScore

**bool type** (boolean, logical)
comes from deciding

- false female
- true done
- false FALSE
- false over21
- true isWeekEnd
- true isosceles
- false increasing
- true T

**Str Class** (String, text of characters)
comes from communicating

- message "Gone fishing!"
- phoneNumber "(123) 456-7890"
- Hyphen "-"
- fullName "Dr. Joe Doe III"
- weekDay "Tuesday"
- profit "$1,234,567.89"
- address "300 Main Ave."
- poem "I think ....."