qui = 1 today
pai due today.

Processing provides Event Listener Functions:

mousePressed()
mouseReleased()
mouseClicked()
mouseMoved()
mouseDragged()
keyPressed()
keyReleased()
Chapter 4: Variables

A variable is a symbolic name for an area of computer memory.

\[
\text{variable name}
\]

Memory area to store data.

### Processing (and ancestors: C, C++, Java)

It is a strongly typed language. This means every variable is associated with a specific data type.
Data types fall into two categories in Java (i.e., Processing):

- **Primitive types**
- **Reference types (or class types)**

We have 8 primitive types:

<table>
<thead>
<tr>
<th>Name</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>boolean</td>
<td>true, false</td>
</tr>
<tr>
<td>char</td>
<td>characters: 'a', 'b', 'A', 'B', ...</td>
</tr>
<tr>
<td>byte</td>
<td>-128 (\Rightarrow) +127</td>
</tr>
<tr>
<td>short</td>
<td>-32,768 (\Rightarrow) +32,767</td>
</tr>
<tr>
<td>int</td>
<td>(-2^{31}) (\Rightarrow) (+(2^{31}-1))</td>
</tr>
<tr>
<td>long</td>
<td>(-2^{63}) (\Rightarrow) (+(2^{63}-1))</td>
</tr>
<tr>
<td>float</td>
<td>7 dec. digits</td>
</tr>
<tr>
<td>double</td>
<td>15 dec. digits</td>
</tr>
</tbody>
</table>
We will (mostly use):

boolean, char, int, float

\[
\begin{align*}
\text{Ex: to declare & initialize a variable} \\
\text{int } x; \\
x = 6;
\end{align*}
\]