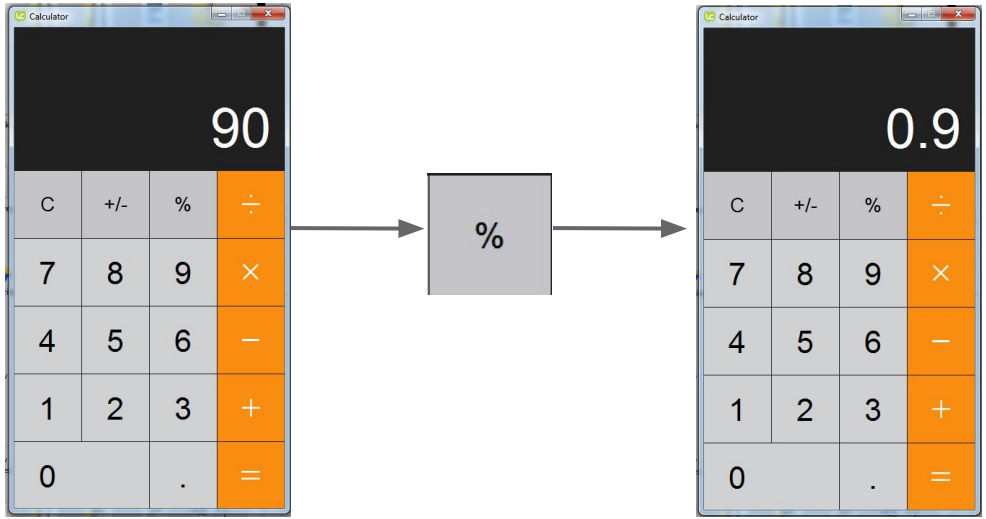
Calculating a Percentage

Now we can enter numbers and clear the display we are ready to do our first calculation.

The percent button on the calculator will turn the number displayed in the field into a percentage for use in calculations. It does this by dividing the displayed number by 100.



The percentPressed Command

Once again, we are going to add a custom command to the card script. Open the card script and add the code to the right.

1. Declare a temporary local variable (more on these in the upcoming slides!) and store the contents of the calculator display in it.

2. Next we do the percentage calculation and update the display with the new value all in one!

```
command percentPressed
1 local tCurrentValue
  put field "display" into tCurrentValue
2 put (tCurrentValue/100) into field "display"
end percentPressed
```

Key LiveCode Concept

/ - Use the / (divide) operator to divide one number by another.

number1 / number2

number1 - any number or expression that evaluates to a number

number2 - any number or expression that evaluates to a number

An expression that evaluates to a number could be a variable, such as we use in the **percentPressed** command.

For example:

```
put 6/3 into tNum
```

The value of **tNum** will be 2.

Calculate a Percentage

When the user clicks on the percentage button, we want to call the **percentPressed** command so that the user can perform a percentage calculation using the calculator.

In the script of button **percent** define a **mouseUp** handler. Call the **percentPressed** command from within the handler.

Switch to run mode, and give it a whirl!

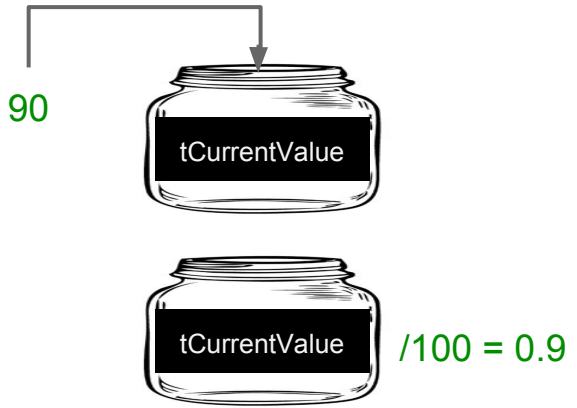
```
on mouseUp

  percentPressed

end mouseUp
```

What is a variable?

In the Simple Messages App you had a brief introduction to variables. We will take a closer look at what variables are now. Variables are used to store data. One way to think of variables is as labeled jars that store different types of data. Another way is to think of them like the letters used in place of unknown numbers in algebra.



OR

x = 90

x/100 = 0.9

Once you have put a value into a variable, when you want to use the value in the variable you refer to the variable by name. Although you don't know the value in the variable you can use it in your code.

Using Local Variables

In the Simple Messages App, we used local, temporary variables, we will discuss what they are in more detail here.

Let's take a closer look at the first line of code in the **percentPressed** command:

```
local tCurrentValue
```

This declares a local, temporary variable. What this means in this case is that the **tCurrentValue** variable will be available throughout the **percentPressed** command.

A local, temporary variable can only be used in the handler that creates it. Once the handler finishes executing, the variable is deleted. The next time you execute the handler, the variable starts from scratch - it does not retain what you put into it the last time the handler was executed.

More About Variables

You can learn more about variables in the User Guide, which you can find in the Help menu. Have a look at Chapter 5.5: Variables.