

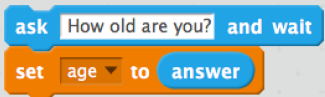


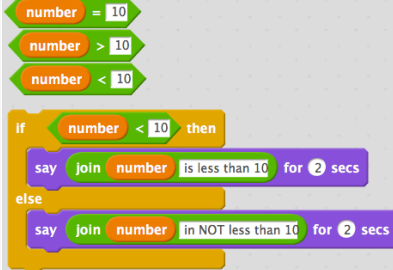
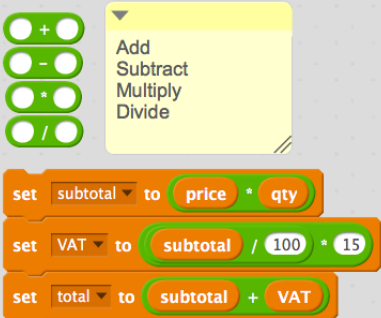


# Programming: Scratch

Scratch Blocks	Description
	<b>Assigning values to variables</b> Use <b>Set</b> to put a value into a variable
	<b>Outputting values</b> Use <b>Say</b> to output information to the stage. Use <b>Say</b> to output the contents of a variable. Use <b>Join</b> to put together longer strings of information.
	<b>Inputting data and assigning to a variable</b> Use <b>Ask</b> to get data from the user. Use <b>Set</b> to put the <i>answer</i> into a variable.
	<b>Selection Statements</b> If the condition (the test) is true, Then do this...  If the condition (the test) is true, Then do this...  Else (is NOT true) do this...
	<b>Loops</b> The <b>Forever</b> loop. An infinite loop. It will never stop repeating.  The <b>Repeat <i>n</i></b> loop. This will always repeat <i>n</i> times.  The <b>Repeat Until...</b> loop. It will keep repeating until the condition (the test) is true

Scratch Blocks	Description
	<b>Testing Conditions (Using Comparative Operators)</b> Used with <b>If</b> statements and <b>Repeat Until...</b> to compare values to see if they are true.
	<b>Mathematical Operators</b> Used to do mathematical calculations. The answer can be used wherever a value can be placed (e.g. in variables, say, Repeat <i>n</i> ).

Key Word	Definition
Algorithm	A set of step-by-step instructions that solve a problem.
Code	A set of instructions written in a way computers can understand and follow.
Comparative Operators	Symbols used to decide true or false conditions by comparing values (e.g. =, <, >)
Initialise	Setting up the program (including setting the starting values for variables as well as the starting positions of sprites).
Input	Allows the user to enter data into the program while it is being executed
Loop	A programming structure that allows the code inside it to be repeated multiple times.
Mathematical Operators	symbols used to indicate a type of calculation to be carried out (e.g. +, -, /, *)
Selection	Using code to choose what happens next in a program. Relies on a conditional statement being true.
Sprite	A graphical object that can move on the stage as part of the program.
Variable	a place where data is stored whilst the program is running. The data value can change during the program.