

Variable Cheat Sheet Number Edition

/ is used on a computer for divide. * is used on a computer for multiply.



| Facts | Whiteboard example | Algorithm Examples | Code examples |
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| If you want to store a number and use it again you need to assign it to a variable. At the beginning of each program you need to initialise the variable, give it a starting value. | | Assign 0 to score Assign 0 to the variable called score Assign 0 to var score Make variable score same as 0 Make score = 0 | Scratch 2.0 Scratch 3 |
| You can change a number value in a variable by adding, subtracting, multiplying or dividing by a number. | <p>On a whiteboard you will have to do the maths yourself</p> | Add three to variable called score +3 to score Subtract 3 from score variable Multiply score by 3 Divide var score by 2 X score variable by 3 / score by 2 | Python example <code>score=0</code> Add 3 ⁽¹⁾ Divide by 2 Multiply by 3 Python example <code>score = score +3</code> |
| You can add, subtract, multiply or divide variables and put the new total in another variable. <i>(stick to one operation per line if you don't know the order of operations)</i> | | <code>num1 + num2 = total</code> <code>total = num1 + num2</code> Add num1 to num2 and put result in total <code>num1 * num2 = total</code> <code>total = num1 * num2</code> Divide num1 by num2 and put into total | Multiply Subtract Python example <code>total = num1 + num2</code> |
| If you want to show what is assigned to a variable you can say it, print it or show it on screen. | Read out loud what value is assigned to this variable shown on the whiteboard | Say total Print total Show the total on screen | Python example <code>print (total)</code> |
| A variable with a number assigned can replace any number in your algorithm or program. | | Walk num1 steps Turn right num2 degrees Jump num1 times Wait for total seconds | |
| A user can input a number into a variable on your algorithm or program. | Assign a value to this variable by writing it on the whiteboard | Ask the user what their favourite number is and put their answer into a variable called fav_num | |
| A user can increase a variable by their amount inputted | Increase the value assigned to the variable on the whiteboard by | Ask the user how many steps they have walked and increase the steps variable by their answer | |