

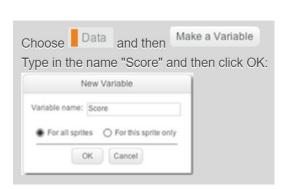
Understanding Variables in Scratch

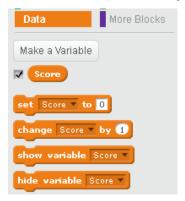


Variables are values that store different types of data (information), such as: character, string, integer, floating-point, or Boolean. In this activity, you will create a score variable to your "Race to Finis" game created in a previous activity, while also identifying what type of variable it is.

- 1. Go to www.scratch.mit.edu.
- 2. Click on the **Sign-in** tab to login and access your account.
- 3. Click on the **My Stuff** tab underneath your account username.
- 4. Click **See Inside** your Race to Finish Game previously created.
- 5. Make a variable to keep track of score.

*Note – A new block will appear and the variable Score will show up on the stage.





6. Create the following algorithms for each sprite.

```
when clicked

show

set Score to 0

forever

if touching Sprite2 2 then

change Score by 1

broadcast hide dog and cat

when I receive hide duck and cat thide

when I receive hide dog and duck thide
```

```
when clicked

show

set Score to 0

forever

if touching Sprite2 ? then
change Score by 1

broadcast hide duck and cat v

when I receive hide dog and duck v

hide
```

```
when clicked

show

set Score to 0

forever

if touching Sprite2 ? then

change Score by 1

broadcast hide dog and duck

when I receive hide duck and cat v

hide

when I receive hide dog and cat v

hide
```

Question:

What type of variable did you create with the Race to Finish Game? Explain the use of these variables in the game?

A Real-World Example of Variables, Expressions, & Operators

A customer pays \$60 dollars for a computer game after adding a discount of \$15 dollars. What is the original price of the game?

$$x - 15 = 60$$

Answer: ______

Type of Variable: _____

Type of Operator: _____

Boolean Concepts in Scratch

Label which of the following figures shows conditional Boolean operators and which one shows comparative Boolean operators. Why?

```
when space wey pressed

move 3 stens

if not touching Sprite2 ? then

repeat 5

move 5 steps

else

say Selection Programming Structure for 2 secs
```

```
when clicked

ask Is it raining? and wait

if answer = yes then

say get umbrella for 3 secs
```