



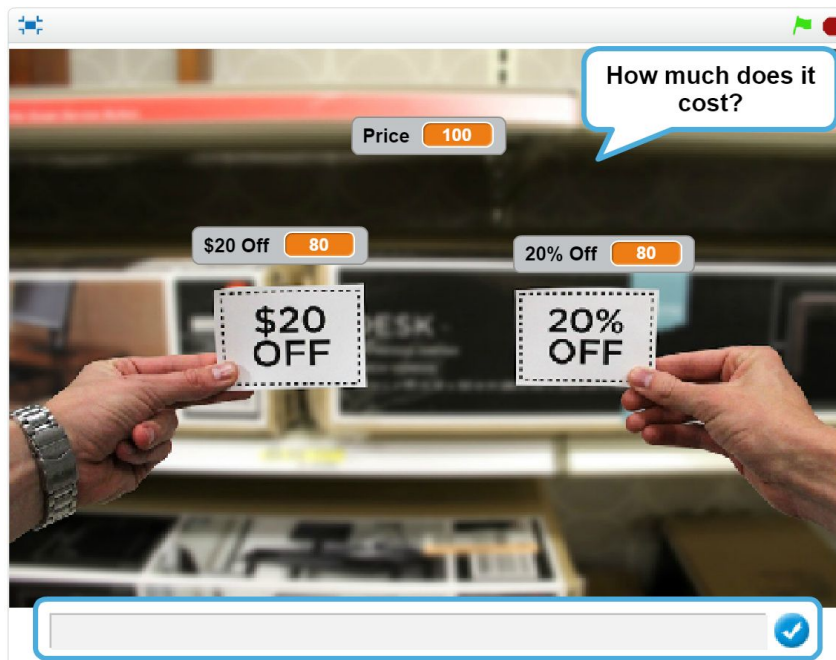
Dueling Discounts - #CSandMath

Project Goal:

Students will use their understanding of percents to write a program dueling the which discount is a better deal!

Standard:

6.1.1.4 Determine equivalences among fractions, decimals and percents; select among these representations to solve problems.



9-11.9.2.1 Understand the concept of function, and identify important features of functions and other relations using symbolic and graphical methods where appropriate.

Teacher Guide:

I would first take students through a version of Dan Meyer's original lesson on [Dueling Discounts](#). Having a good sense of numeracy and context is most definitely a prerequisite to partnering with computer programming :) Complete the student handout and consult the solution keys here before having students complete.

[Student Handout Lined Here](#)



Solutions:

Initial Dueling Discounts Task:

```

when clicked
ask How much does it cost? and wait
set Price to answer
set 20 Dollars off to Price - 20
set 20 % off to Price * .8

```

Functions:

```

when clicked
ask How much does it cost? and wait
set Price to answer
20 Dollars Off Price
20% Off Price

define 20 Dollars Off Price
set 20 Dollars off to Price - 20

define 20% Off Price
set 20 % off to Price * .8

```

Functions Challenge Possible Solution:



Scratch script for calculating discounts:

```

when clicked
  ask How much does it cost? and wait
  set Price to answer
  ask What is the amount of your dollar discount? and wait
  set Discount Amount to answer
  ask What is your percent off discount to deal it? and wait
  set Discount Percent to answer
  Dollars Off Discount Price Discount Amount
  Percent off Discount Price Discount Percent

define Dollars Off Discount Price Discount Amount
  set Dollars off Discount to Price - Discount Amount

define Percent off Discount Price Discount Percent
  set Percent off Discount to Price * (100 - Discount Percent) / 100

when space key pressed
  set Dollars off Discount to 0
  set Percent off Discount to 0
  set Price to 0
  
```

Can be useful to create some reset functions