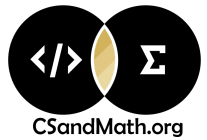




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Exponential Growth: Would You Rather?

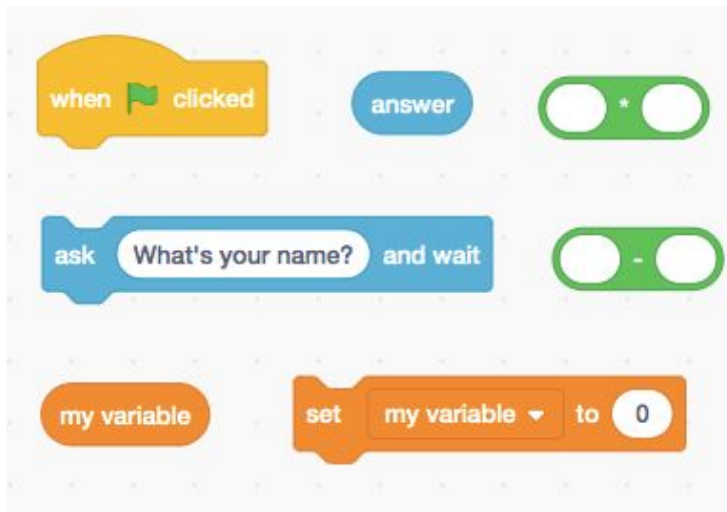
Project Goal:

Students create a program that will find on what day receiving double the previous day's amount of pennies everyday, starting with one penny, will exceed one million dollars.

Standard: CCSS.MATH.CONTENT.HSF.LE.A.3

Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.

Blocks:



Student Handout: [Exponential Growth Student Guide](#)

Teacher Video: [Exponential Growth Teacher Video](#)

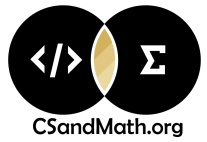
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Solution:

```
when clicked
  ask "What is the amount of money on day 1?" and wait
  set Day 1 Amount to answer
  ask "What is your money being multiplied by each day?" and wait
  set Multiplier to answer
  ask "How many days will you follow this pattern?" and wait
  set Days to answer
  set Temp. Total to Day 1 Amount
  repeat Days - 1
    set Temp. Total to Temp. Total * 2
  broadcast Reveal Total and wait
  set Total to Temp. Total
```

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