

Making art from birthdays

Short hands-on workshop to learn about generative systems

What will we do?

- Use birthdays as our dataset: DD/MM/YYYY
- Follow simple rules to use these to make something fun
- Explore making our own rules (go crazy!)

Pick two birthdays

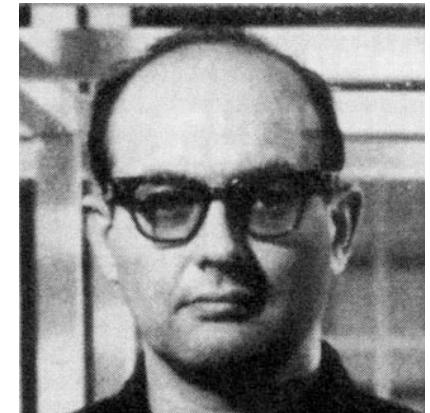
Friends, family
or from this list.



Massimo Vignelli
10/01/1931



Susan Kare
05/02/1954



Sol LeWitt
09/09/1928



Daniel Radcliffe
23/07/1989



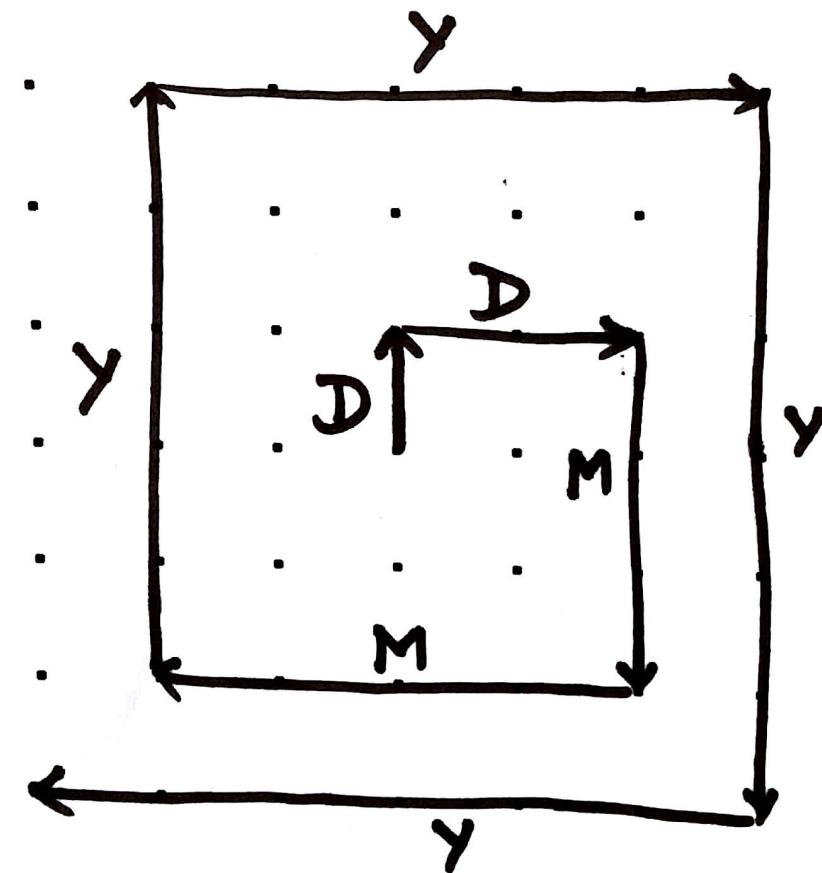
Elijah Wood
28/01/1981



Lindsey Stirling
21/09/1986

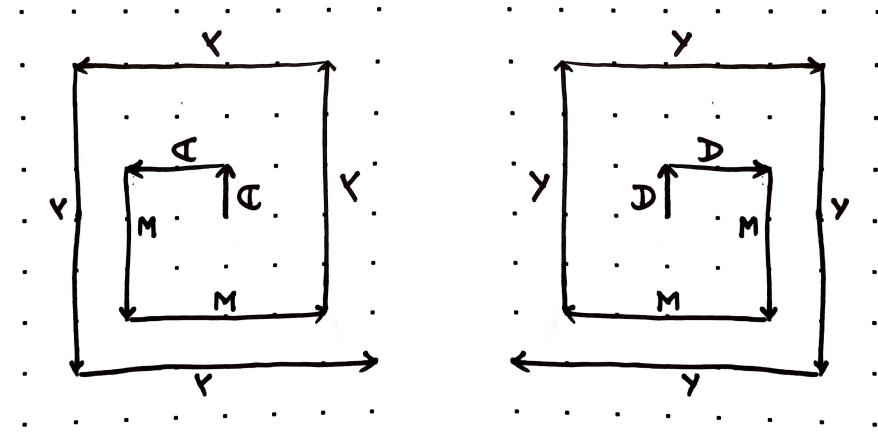
Spiral in!

1. Move clockwise, starting UP.
2. For the first digit, move up for that many dots on the grid.
3. Turn right.
4. Repeat for all digits.



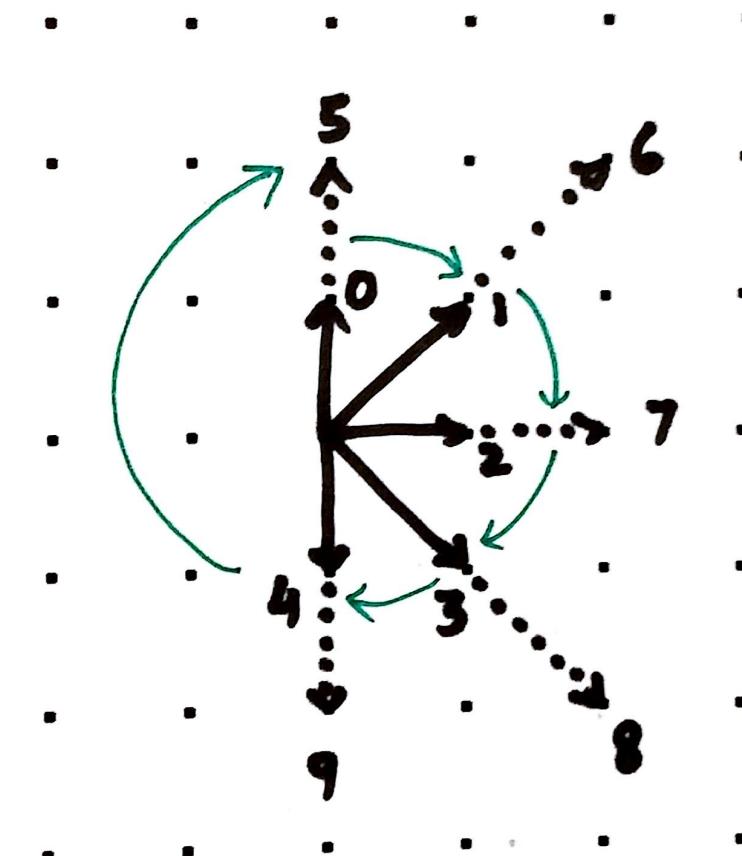
Symmetry

1. Move clockwise, starting UP.
2. For the first digit, move up for that many dots on the grid.
3. *Turn left.*
4. Repeat for all digits.
5. (Repeat both steps for the second birthday)



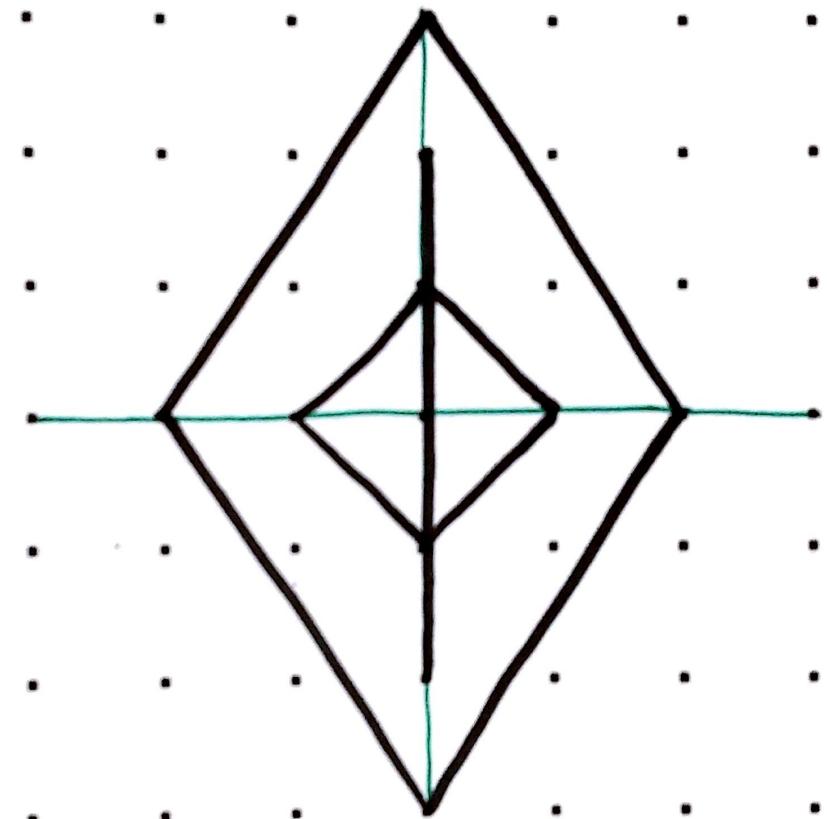
Define an encoding

1. For each digit, move in the direction & steps as shown.
2. Continue for each digit.
3. End by connecting with the starting point.
4. Repeat to create symmetry



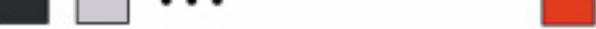
Group your data

1. Group two-digits as a pair.
2. Use the first & second digit to define the height & width of the polygon.
3. Continue for each pair.



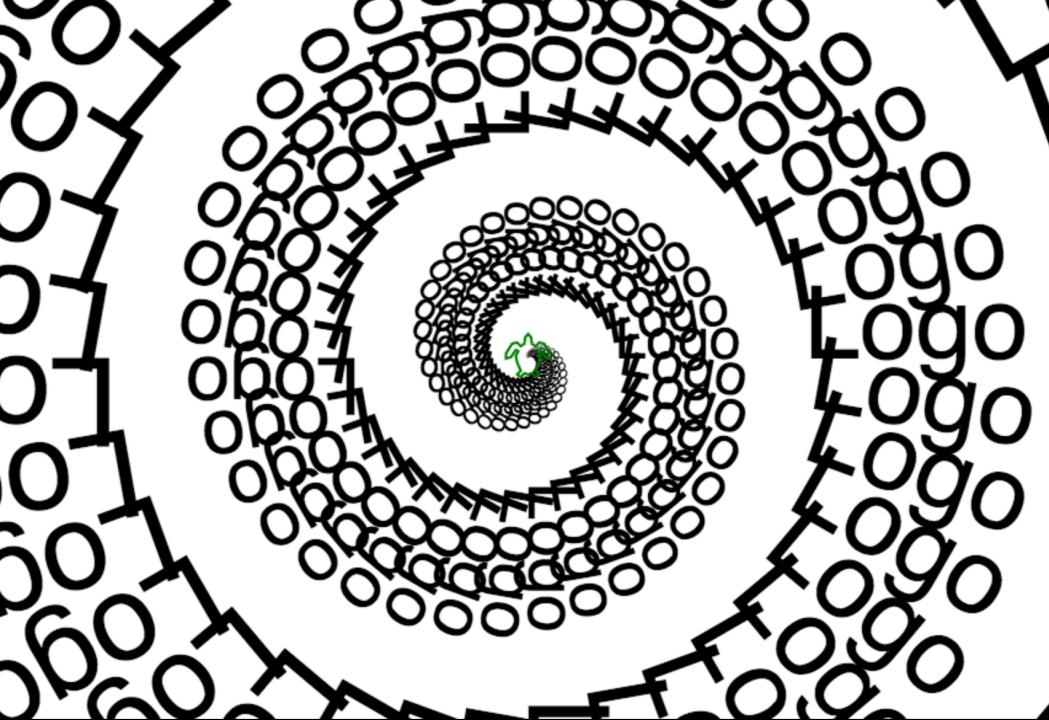
Go crazy!

- Data: Convert numbers to binary, roman numerals etc.
- Meaning: Convert numbers to text, and use letters for encoding
- Encoding: Try shapes, sizes, rotation, color etc.

property	marks	ordinal/nominal mapping	quantitative mapping
shape	glyph	○ □ + △ S U	
size	rectangle, circle, glyph, text	● ● ● ●	●●●●●●●●●●
orientation	rectangle, line, text	— — / \ —	--- --- / / / / / /
color	rectangle, circle, line, glyph, y-bar, x-bar, text, gantt bar	 	min  max

Try this with LOGO

Logo Interpreter [Tests](#) | [Source](#) | [Collaborate](#) | English ▾



```
1 clearscren window hideturtle
2 repeat 144 [
3 setlabelheight repcount
4 penup
5 fd repcount * repcount / 30
6 label "Logo"
7 bk repcount * repcount / 30
8 pendown
9 rt 10]
```

Run Clear

Reference – the Logo language
Library – your procedures
History – everything you've done here
Examples – fun things to try out
Extras – helpful utilities
Links – other Logo resources

Fork me on GitHub

```
TO star
repeat 5 [ fd 100 rt 144 ]
END
clearscreen
star

TO square :length
repeat 4 [ fd :length rt 90 ]
END
TO randomcolor
setcolor pick [ red orange yellow green blue violet ]
END
clearscreen
repeat 36 [ randomcolor square random 200 rt 10 ]

clearscreen window hideturtle
repeat 144 [
setlabelheight repcount
penup
fd repcount * repcount / 30
label "Logo"
bk repcount * repcount / 30
pendown
rt 10
wait 5
]
showturtle

TO tree :size
if :size < 5 [ forward :size back :size
stop]
forward :size/3
left 30 tree :size*2/3 right 30
forward :size/6
right 25 tree :size/2 left 25
forward :size/3
right 25 tree :size/2 left 25
forward :size/6
back :size
END
clearscreen
tree 150
```

<http://www.calormen.com/jslogo/>

Try this with Processing

The screenshot shows the homepage of OpenProcessing.org. At the top, there's a large, colorful, low-poly geometric artwork. Above it, the text "Algorithmic Design for the Creative Hive" is displayed, along with a call to action: "Create, fork and explore interactive sketches in p5js". Below this, another section encourages creating classes for learning and collaboration. At the bottom, a grid of smaller sketches is shown, each with a "See all" link. A navigation bar at the very top includes icons for account, search, and refresh.

Algorithmic Design
for the Creative Hive

Create, fork and explore interactive sketches in p5js.

Create your own class where students can learn and collaborate together. [Learn more](#)

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Sketches that received ❤️s this week

[See all](#)

<https://www.openprocessing.org/>

Thanks!

@rasagy