TinkerBlocks

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Principles of Programming Languages
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Women's Undergraduate Liberal Arts College

TinkerBlocks Team

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Blocks Languages
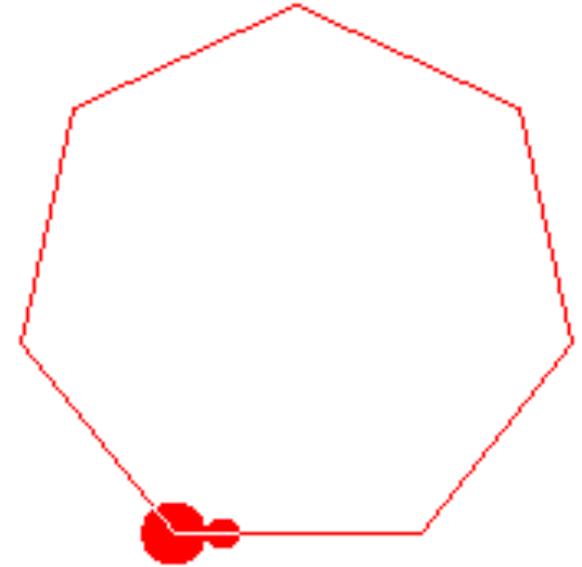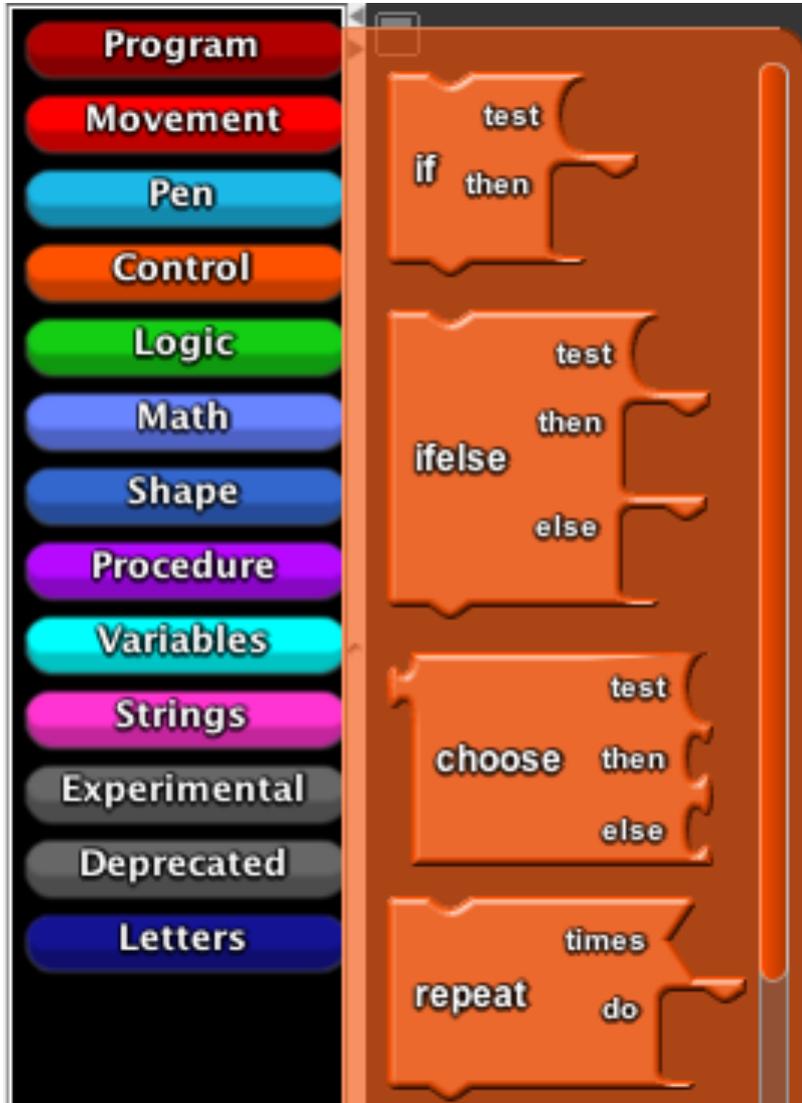
TurtleBlocks

Growing in Popularity

Scratch: multi-media programs, animations, and games
Over **1 million registered users** and **3 million projects**
uploaded to the community gallery

MIT App Inventor: apps for Android smartphones
About **600,000 users** and **1.25 million projects**

Blockly: being developed as user PL for Google products

Blockly > Apps > Maze

Run Program

Commands
Logic

move forward

else if   if

else

if   wall ahead
do   turn left

repeat until finished
do   move forward

repeat while   not   wall ahead
do
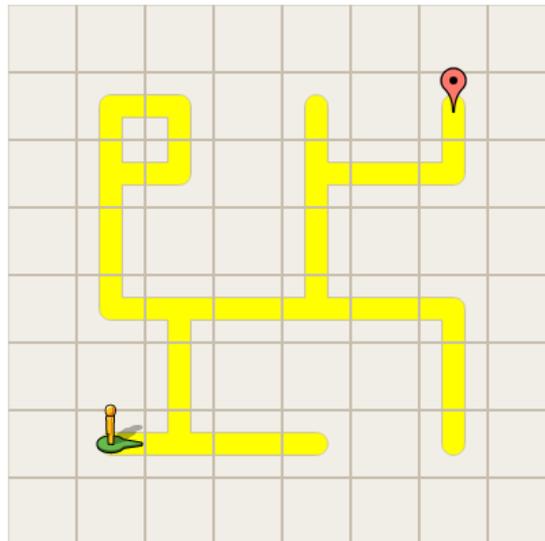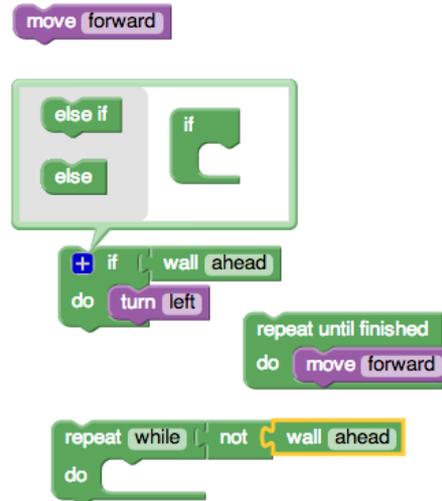
TurtleBlocks

TurtleBlocks program

set corner type SHARP

set thickness 15

run once

repeat times 5

do forward distance 200

left degs 144

turtle drawing

drawing boundary

cardstock

acrylic

PictureBlocks

PictureBlocks program

beside
pic above
pic clockwise90 pic hex color = Blue
pic kite color = Red
pic flipDiagonally pic wedge color = Green
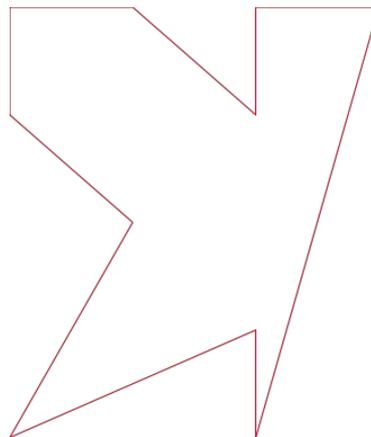
wood artifact   picture boundary   resulting picture
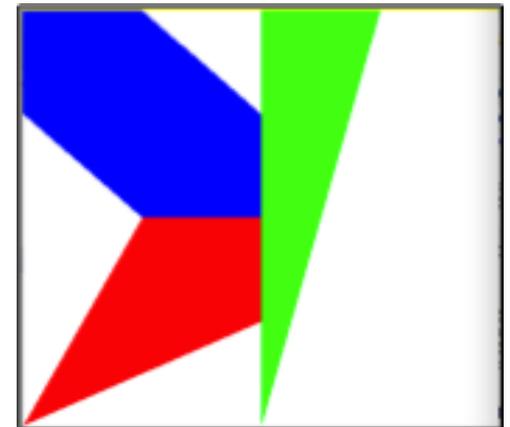
# Creating Artifacts
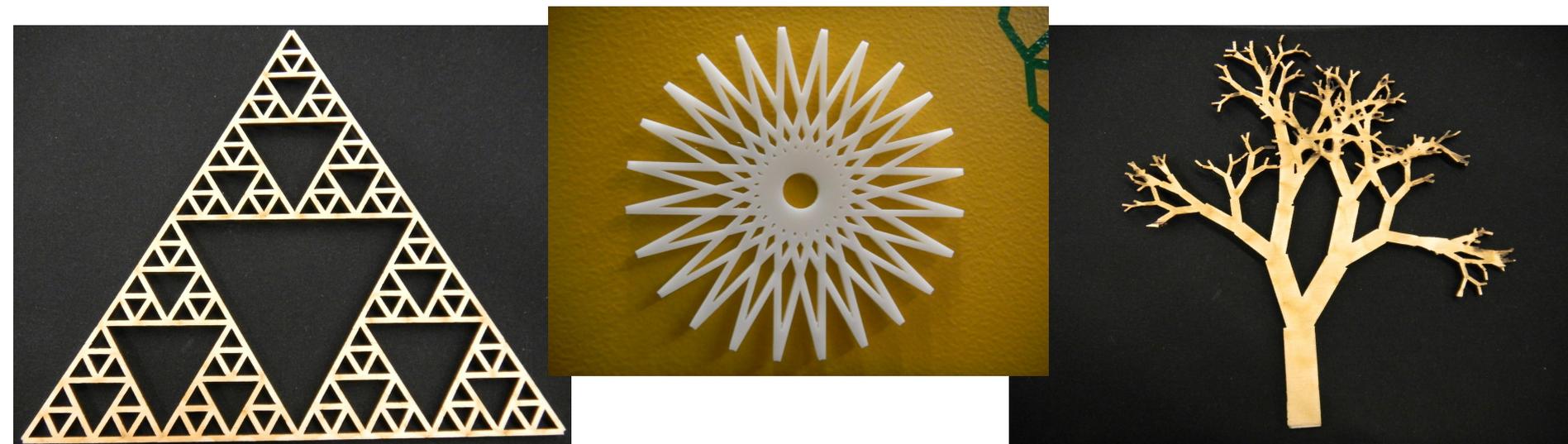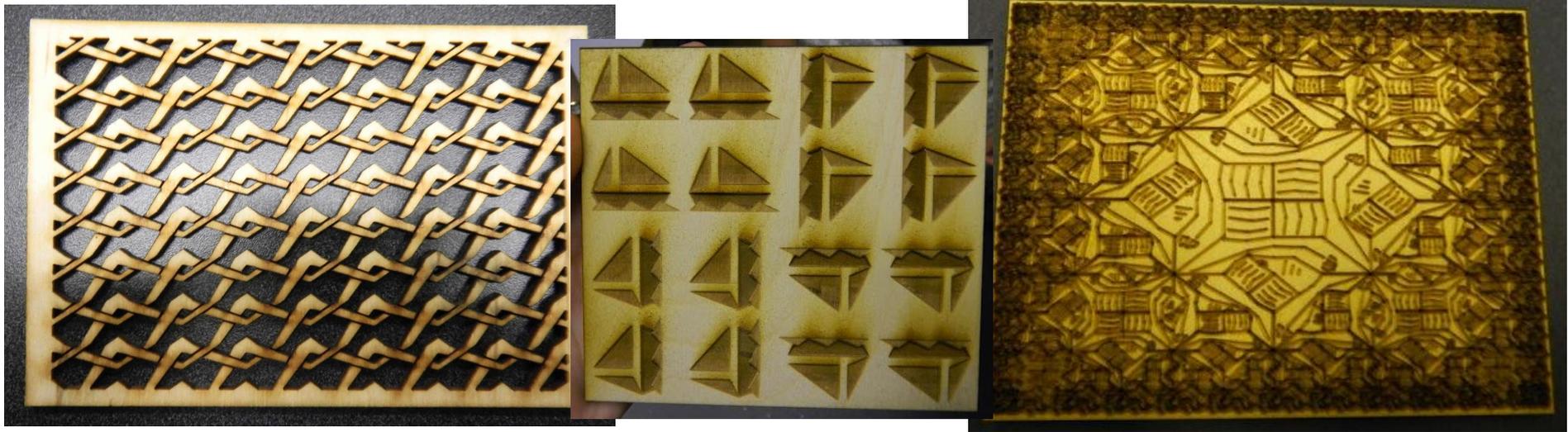
# Types by Shape

Number

Boolean

String

Picture

Color
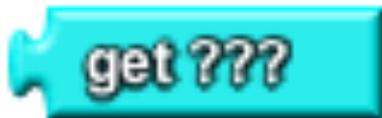
Polymorphic

Polymorphism
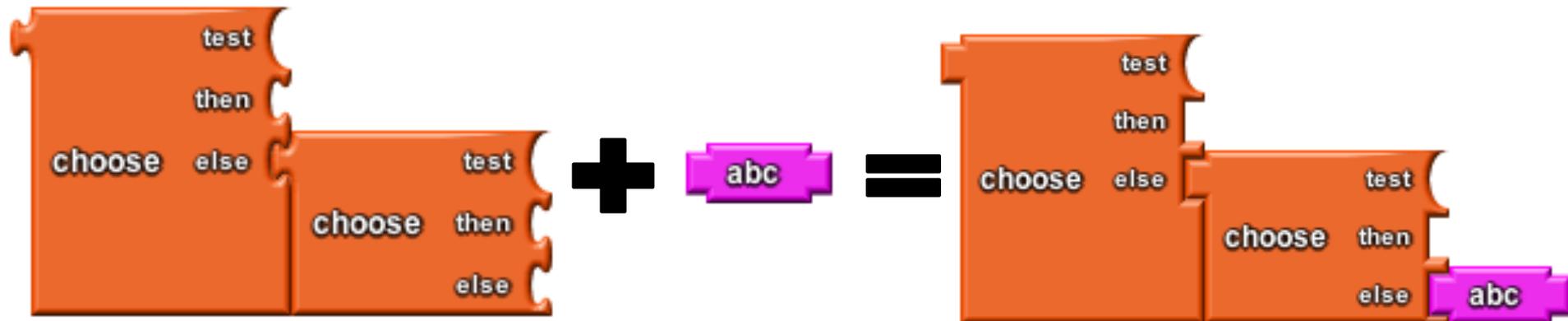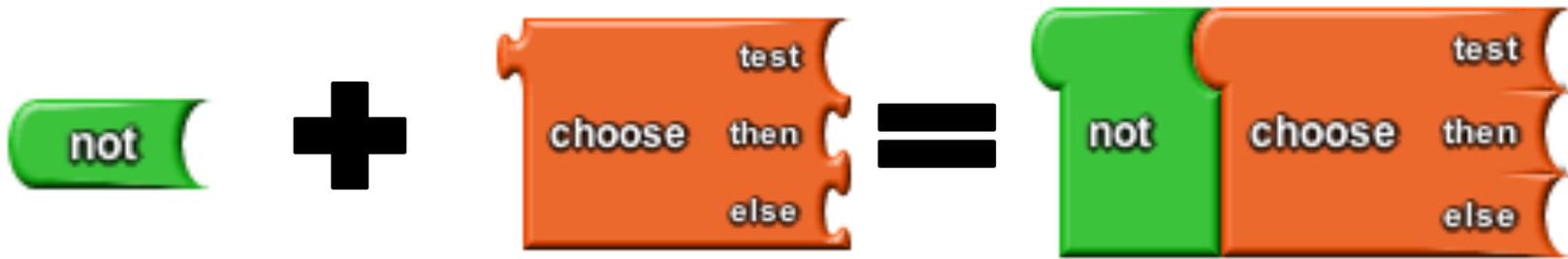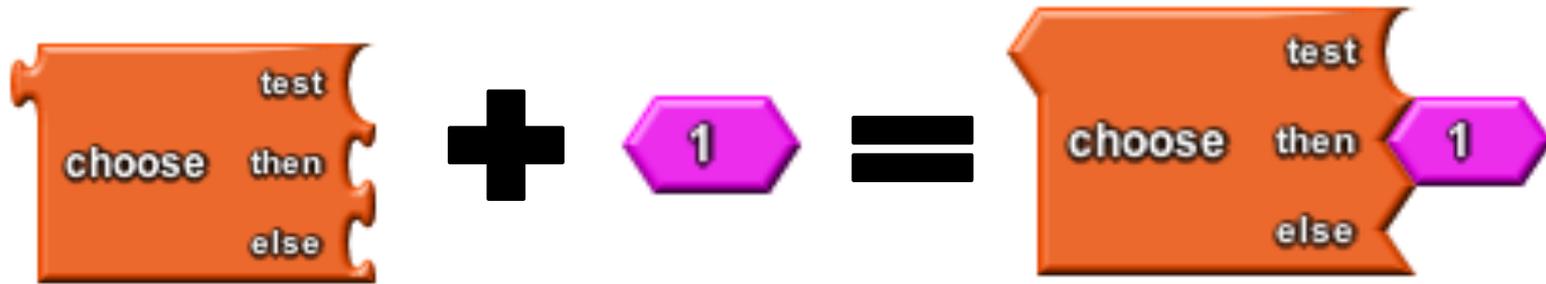
Scoping
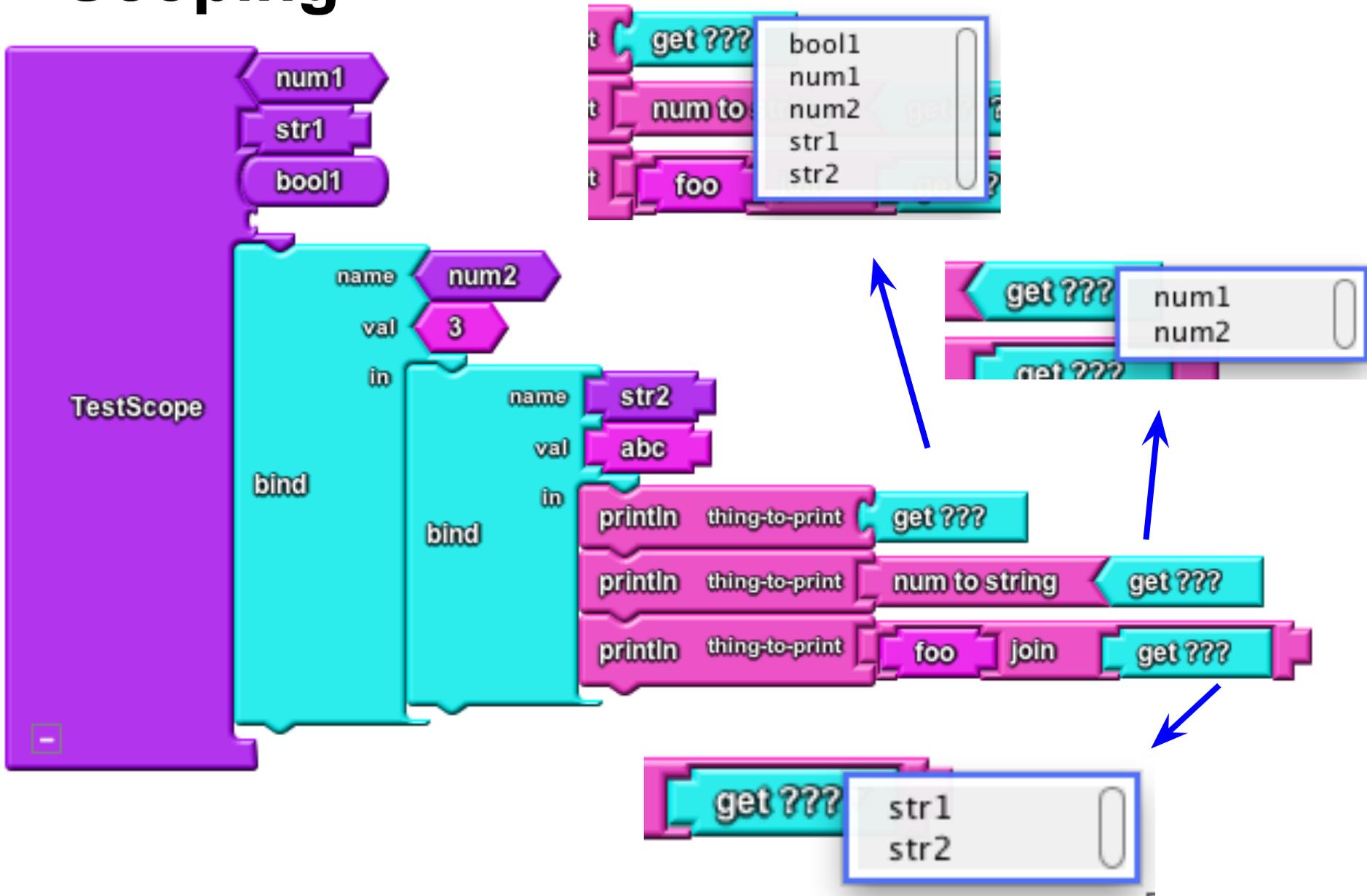
Marie Vasek's TypeBlocks

3 Constructors:
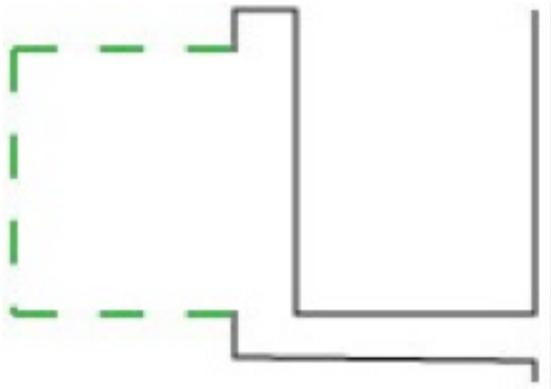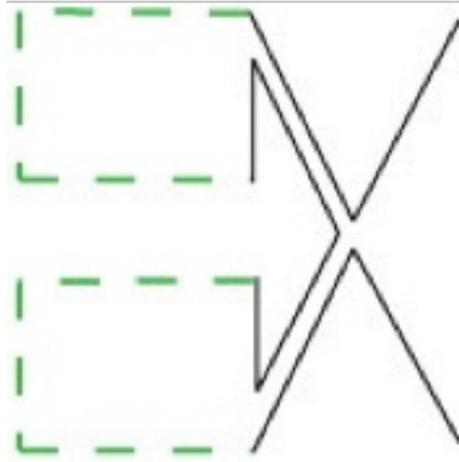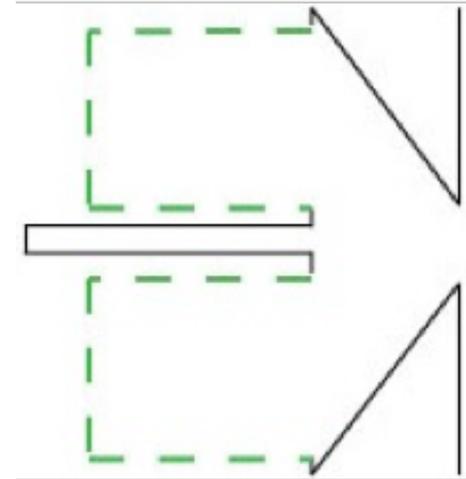
list   pair   function
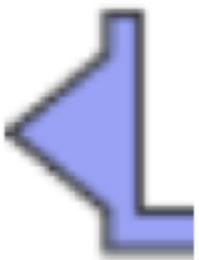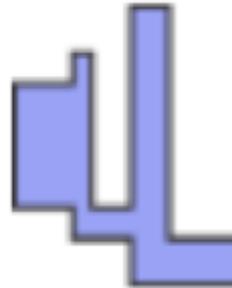
int list   string list list   int * string   bool -> string

TypeBlocks Examples

(string * bool) list

(string list) * bool

bool * (string -> int list)
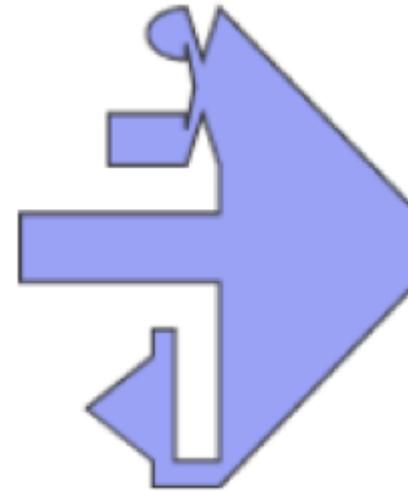
(bool * string) -> (int list)

Questions?

More information at www.tinkerblocks.org
And you can see us for a demo!