

# Intermediate Math Circles

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COMPUTER PROGRAMS - EXTRA

The Centre for Education in Mathematics and Computing  
Faculty of Mathematics, University of Waterloo

[www.cemc.uwaterloo.ca](http://www.cemc.uwaterloo.ca)



## Extra Problem #1

A new instruction named `opposite` is now available to you. The instruction `><` means that the next shape drawn will be the same as the previous shape drawn, except in the alternate size.

For example, the program `t >< S ><` draws the following banner:



Given the program `s >< (s:t/T) 3[><]` draw the corresponding banner.



## Extra Problem #2

Create a program that will draw the following banner:

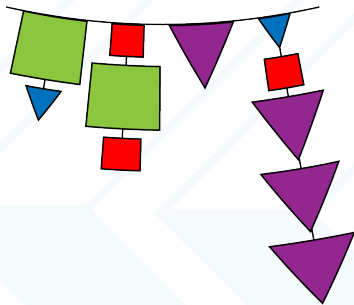


How many different programs can you come up with?



## Extra Problem #3

A new instruction,  $*$ , is now available to you. The program  $S * t s 2[* ><] T >< 4[* (t:s/T)]$  draws the following banner:



What might this new instruction mean?

