

“Turtle Tuesday” Logo Challenges

December 5, 2023

Challenge No. 62

Can you draw a holiday stocking in Logo?
Use square corners for the toe, if you want.



Our solution:

```
TO STOCKING
  SETPC "RED
  RT 30 FD 200
  REPEAT 2 [FD 50 RT 90 FD 120 RT 90]
  RT 90 FD 120
  RT 90 FD 100
  LT 45 FD 60
  REPEAT 10 [FD 12 RT 18]
  LT 43 FD 118
  PU RT 135 FD 20
  PD FILL
  HOME
  RT 30 FD 250
  REPEAT 2 [FD 35 RT 90 FD 10 RT 90]
END
```

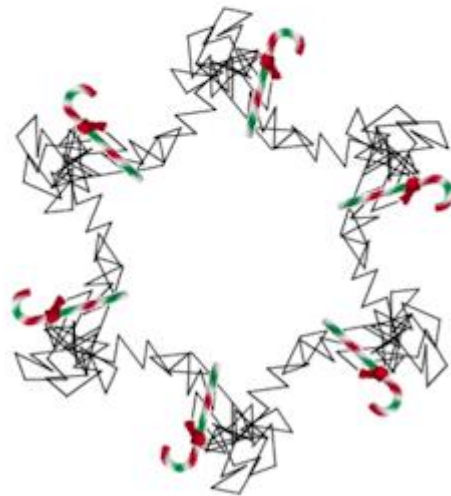
December 12, 2023

Challenge No. 63

Can you use multiple turtles dressed as candy canes to make an interesting design?



Drag the candy cane to each turtle.



Then have some fun with the candy canes!



```
TO CANDYCANES  
DRAW  
TELL [0 1 2 3 4 5]  
CTURTLES 6  
PU FD 100 PD  
END
```

Our solution:

```
TO CANDYCANES  
DRAW  
TELL [0 1 2 3 4 5]  
CTURTLES 6  
PU FD 100 PD  
END
```

CANDYCANES

Now open the Toolbox window (to go the Windows menu and select it. Click the word "Colors" at the top and choose "Other". Drag the candy cane icon from that window to each turtle, one at a time. You will see a red box around the turtle when you know you can drop it to change the shape.

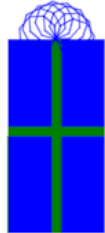
The design above was drawn with this command, after CANDYCANES was run:

```
REPEAT 15 [FD 30 RT 45 BK 20 LT RANDOM 360]
```

December 19, 2023

Challenge No. 64

Can you draw some holiday gifts all wrapped up in Logo?
Make any wrapping you want!



Our solutions:

```
TO GIFT1
SETPC "BLUE
(STAMPRECT 100 200 TRUE)
SETPC "GREEN
FD 100
(STAMPRECT 100 10 TRUE)
PU BK 100 RT 90 FD 45 LT
  90 PD
(STAMPRECT 10 200 TRUE)
PU FD 200 RT 90
FD 5 LT 90 PD
SETPC "BLUE
LT 140
REPEAT 8 [REPEAT 8 [FD
  15 RT 45] RT 22.5]
END
```

```
TO GIFT2
SETPC "GREEN
(STAMPRECT 200 200 TRUE)
RT 90 FD 90 LT 90
SETPC "RED
(STAMPRECT 20 200 TRUE)
PU LT 90 FD 90 RT 90 FD
  90 RT 90 PD
(STAMPRECT 200 20 TRUE)
PU LT 90 FD 100 RT 90 FD
  80 LT 90 PD
SETPC "RED
RT 90 FD 20 LT 240
REPEAT 10 [REPEAT 10 [FD
  15 RT 36] RT 18]
END
```

```
TO GIFT3
SETPC "PURPLE
(STAMPRECT 300 150 TRUE)
SETPC "GOLD
FD 60
(STAMPRECT 300 20 TRUE)
PU BK 60 RT 90 FD 140 LT
  90 PD
(STAMPRECT 20 150 TRUE)
PU FD 150 RT 90 FD 10 LT
  90 PD
SETPC "PURPLE
LT 150
REPEAT 10 [REPEAT 10 [FD
  15 RT 36] RT 18]
END
```

December 26, 2023

Challenge No. 65

Can you print all the lyrics to the song “The 12 Days of Christmas” to Logo’s Listener window?
Better yet, can you write a Logo program to do that?

Tip ➤ Include this instruction in your program: PPROP "PREFS "LISTENER.LINES 120
The lyrics are all listed here: [en.wikipedia.org/wiki/The Twelve Days of Christmas \(song\)](https://en.wikipedia.org/wiki/The_Twelve_Days_of_Christmas_(song))

```
THE TWELVE DAYS OF CHRISTMAS

On the first day of Christmas, my true love sent to me
  A partridge in a pear tree.

On the second day of Christmas, my true love sent to me
  Two turtle doves, and
  A partridge in a pear tree.

On the third day of Christmas, my true love sent to me
  Three French hens,
  Two turtle doves, and
  A partridge in a pear tree.

On the fourth day of Christmas, my true love sent to me
  Four calling birds,
  Three French hens,
  Two turtle doves, and
  A partridge in a pear tree.

On the fifth day of Christmas, my true love sent to me
  Five golden rings,
  Four calling birds,
```

Our solution:

Look up commands you don’t know in the [Logo Commands Overview](#) page.

```
TO 12DAYS
TEXTSCREEN CLEARTEXT
PPROP "PREFS "LISTENER.LINES 120
(SETTEXTFONT "MONOSPACE 18 1)
PR [THE TWELVE DAYS OF CHRISTMAS] PR []
MAKE "DAYS [first second third fourth fifth sixth seventh eighth ninth tenth eleventh
  twelfth]
MAKE "GIFTS [| A partridge in a pear tree. |] [| Two turtle doves, and |] [| Three
  French hens, |] [| Four calling birds, |] [| Five golden rings, |] [| Six geese a-
  laying, |] [| Seven swans a-swimming, |] [| Eight maids a-milking, |] [| Nine ladies
  dancing, |] [| Ten lords a-leaping, |] [| Eleven pipers piping, |] [| Twelve drummers
  drumming, |]
GIFTS 1
END

TO GIFTS :NUMBER
IF :NUMBER = 13 THEN STOP
(PRINT [|On the|] LOWERCASE ITEM :NUMBER
  :DAYS [|day of Christmas, my true
  love sent to me|])
PRINTGIFTS 1 :NUMBER
PR []
GIFTS :NUMBER + 1
END

TO PRINTGIFTS :START :NUMBER
IF :NUMBER = 13 THEN STOP
PRINT ITEM :NUMBER :GIFTS
IF :START = :NUMBER THEN STOP
PRINTGIFTS :START :NUMBER - 1
END
```