Coding with CodeWorld

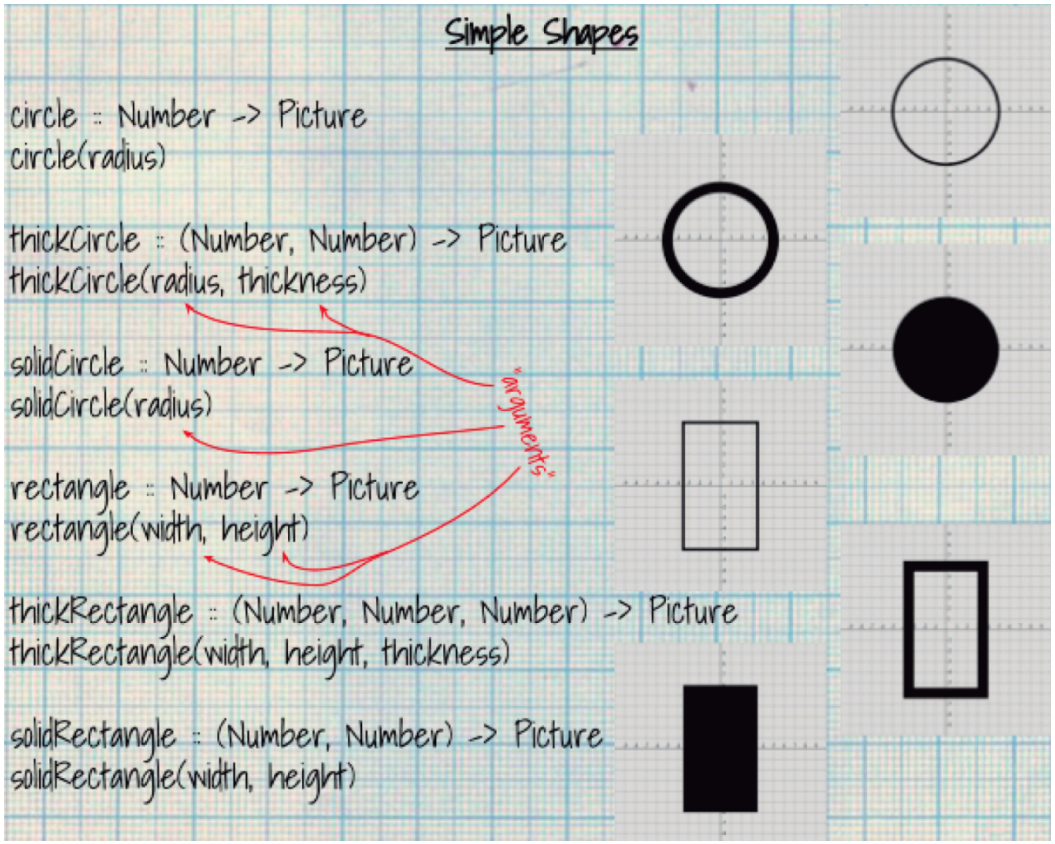
Main site: ***code.world***

Site with our SAMPLE programs: ***sites.google.com/view/lws-classes*** (click on **CodeWorld** link at the top)

Site: code.world

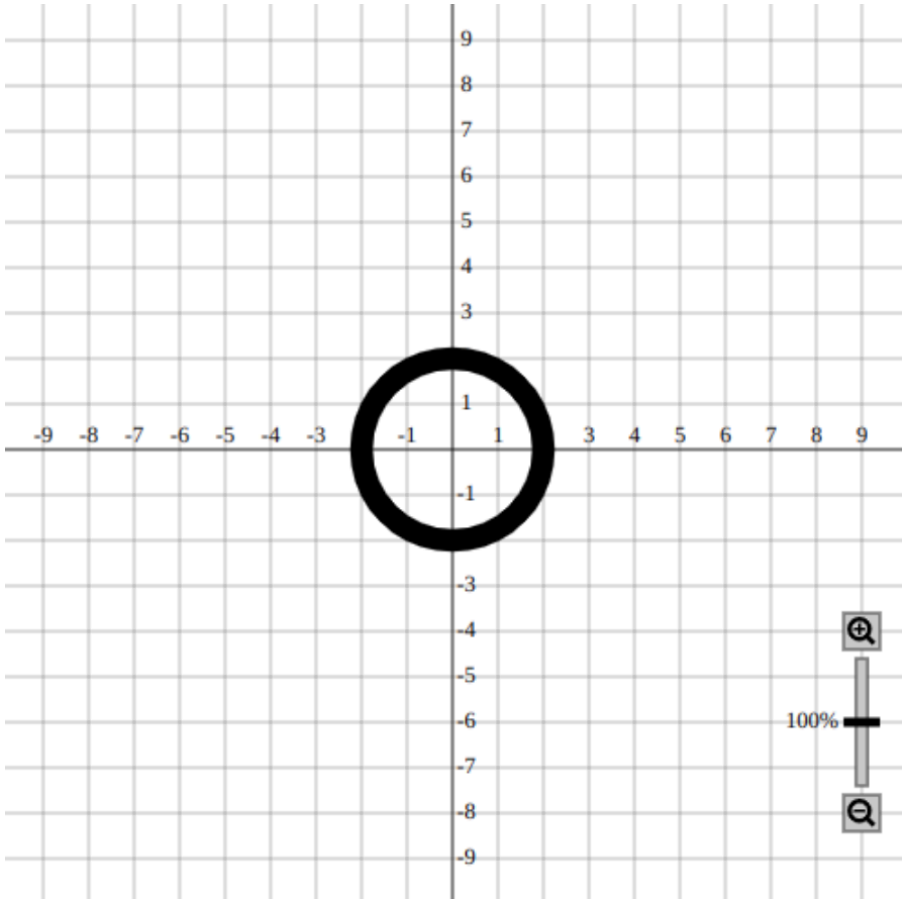
Login: *use your LWS account (e.g. vineet.27@livingwisdomschool.org)*
for William, login: william.28@livingwisdomschool.org
for Leo, login: leo.28@livingwisdomschool.org
for Sasha, login: sasha.28@livingwisdomschool.org
Password: lws12345

NOTE: the login follows "yourName.NN@livingwisdomschool.org" format where **NN** is the year the student graduates LWS Middle school.



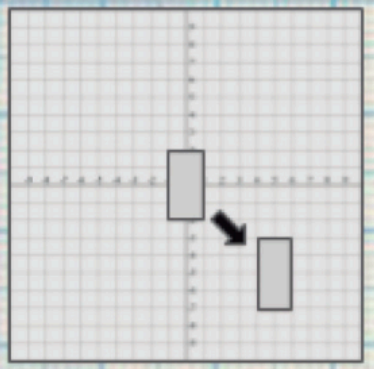
Sample Program and Result

```
1 »program = drawingOf (coordinatePlane & cir1)
2
3 »cir1 = thickCircle(2, 0.5)
4
```

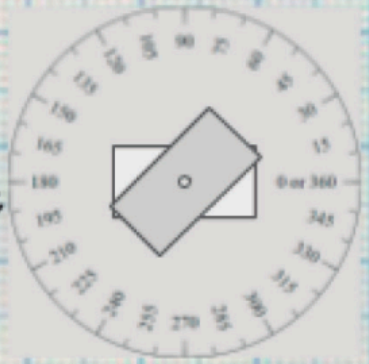


Transformations

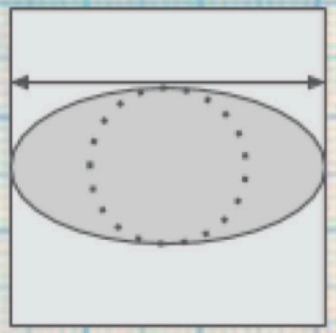
translated :: (Picture, Number, Number) -> Picture
translated(pic, x, y)



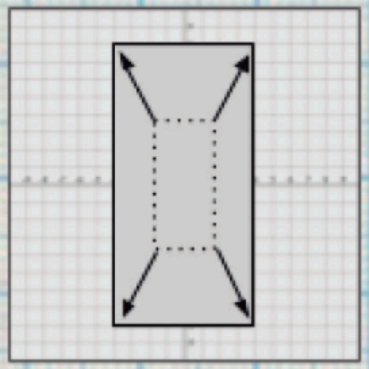
rotated :: (Picture, Number) -> Picture
rotated(pic, angle)



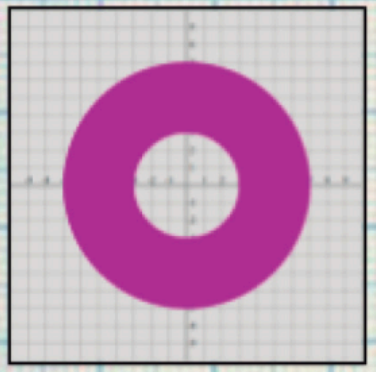
scaled :: (Picture, Number, Number) -> Picture
scaled(pic, xfactor, yfactor)

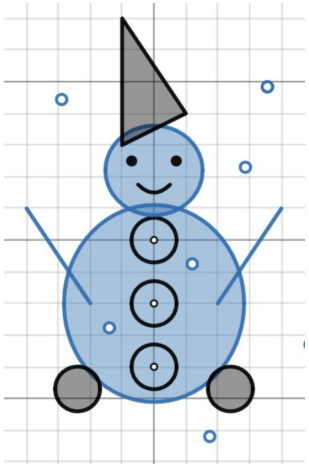


dilated :: (Picture, Number) -> Picture
dilated(pic, factor)



colored :: (Picture, Color) -> Picture
colored(pic, color)





Unit 2. Coding with CodeWorld - Snowman Design

Main site: ***code.world***

Site with the SAMPLE programs: ***sites.google.com/view/lws-classes*** (click on CodeWorld link at the top)

Simple Shapes:

circle(r)

_____

_____

rectangle (w, l)

_____

_____

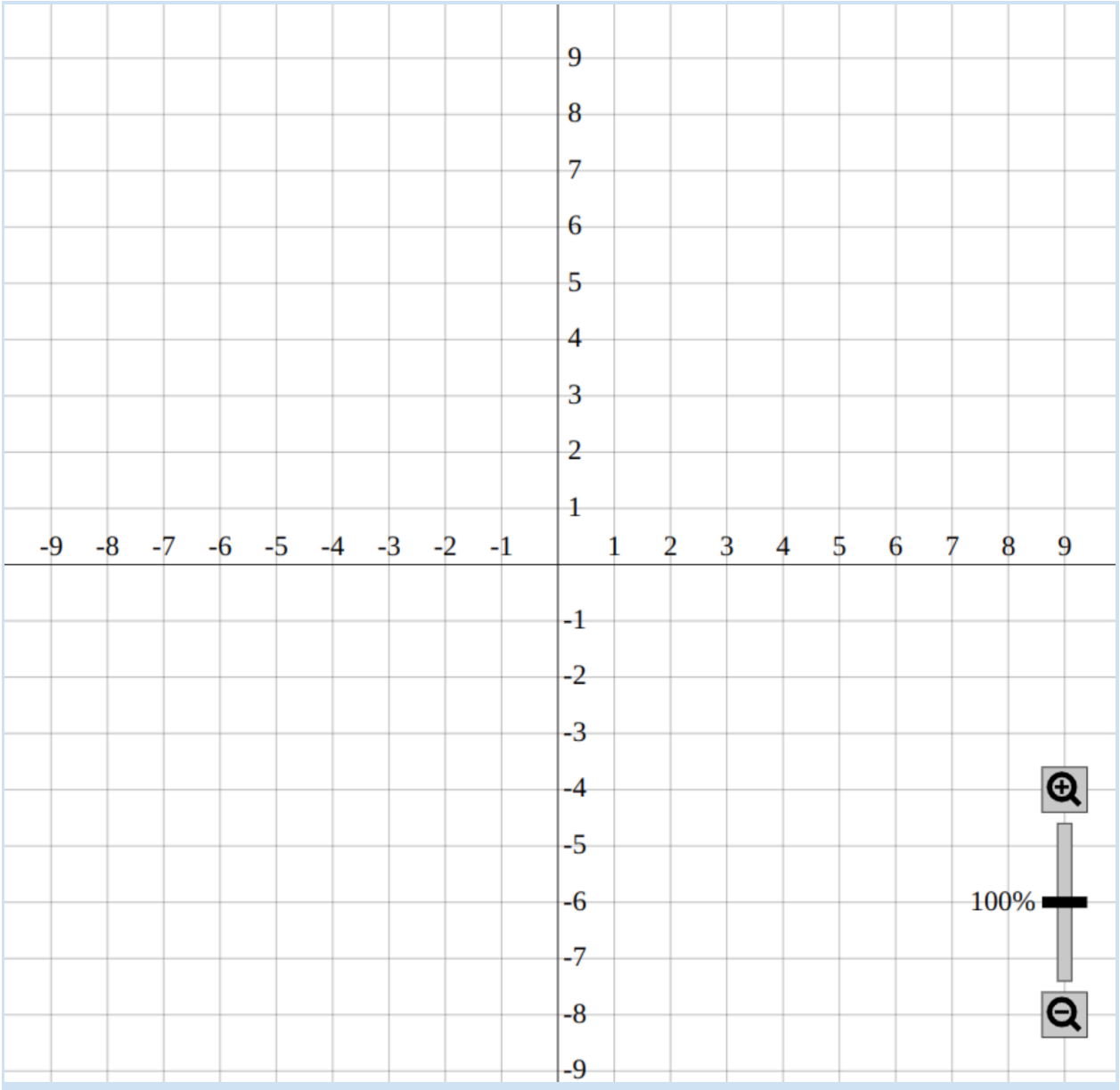
Transformations:

translated (pic, x, y)

_____

_____

_____



Unit 2. Snowman Program

Main site: ***code.world***

Site with the SAMPLE programs: ***sites.google.com/view/lws-classes*** (click on CodeWorld link at the top)

'translated' and 'colored' Functions

Game 1 - Moving Circles: *Read the program below and draw cir2 and cir3.*

```
program = drawingOf (coordinatePlane & testCircles)

 -- Initial circle (radius 1), ready for transformations (changes)
cir1 = circle(1)

 -- -- MOVING Pictures with 'translated' function --
 -- cir1 was translated (moved) 5 units horizontally and 2 units vertically
cir2 = translated (cir1, 5, 2)

 -- cir3 is cir1 moved 3 units *down* (and 0 units horizontally)
cir3 = translated (cir1, 0, -3)


testCircles = cir2 & cir3

```

Game 2 - Coloring Circles: *Read the program and draw cir2 and cir4.*

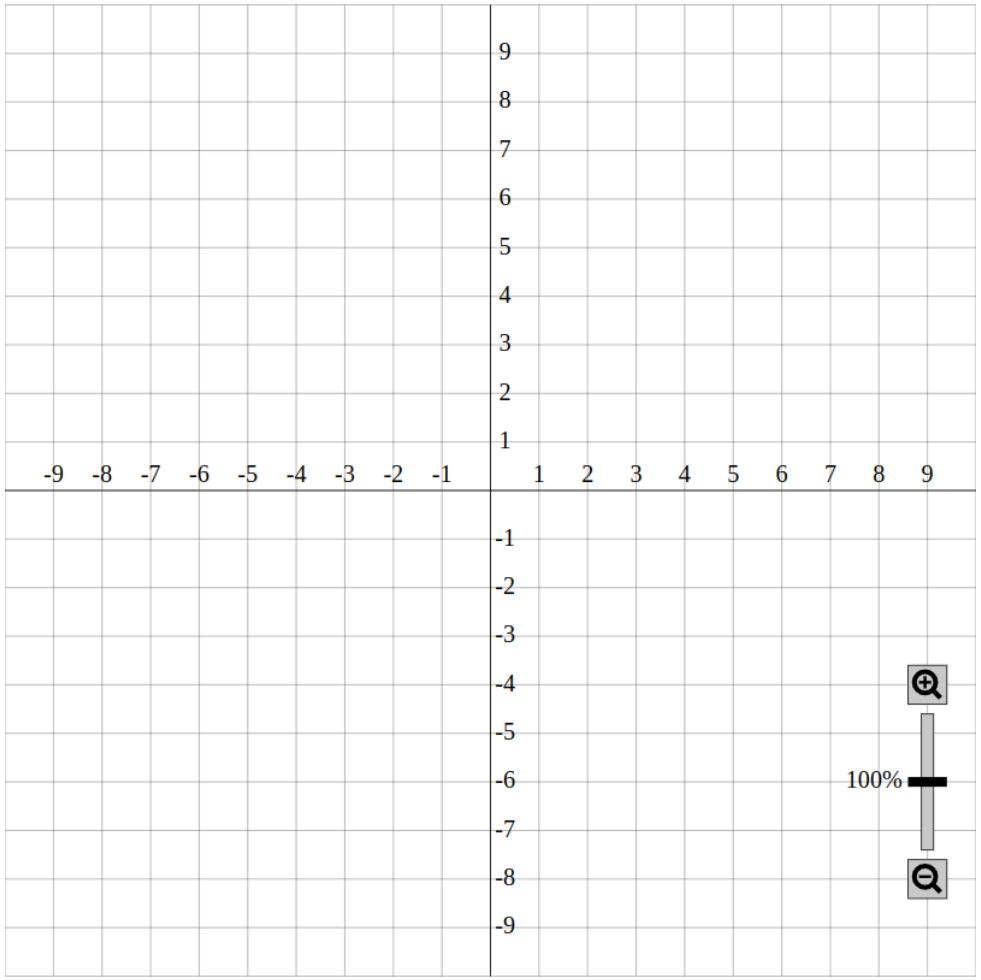
```
program = drawingOf (coordinatePlane & testCircles)

 -- Initial circle (radius 1), ready for transformations (changes)
cir1 = solidCircle(1)

 -- -- COLORING Pictures with 'colored' function --
 -- cir2 is cir1 colored red
cir2 = colored (cir1, green)

 -- cir3 is cir1 moved 3 units *down* (and 0 units horizontally)
cir3 = translated (cir1, 0, -3)
 -- cir4 is cir3 colored light blue
cir4 = colored (cir3, light(blue))


testCircles = cir2 & cir4
```



NOTE: teacher login is lana.lwschool..