Myro Graphics Reference

Generating Colors:  color_rgb(red, green, blue) : parameter value range: 0..255

GraphWin:
   GraphWin(title, width, height) - Constructor
   setBackground(color)
   close()
   isClosed()
   getMouse()
   setCoords( xLL, yLL, xUR, yUR) - When initially created, the graphics window coordinates range from 0,0 (upper left corner) to width-1,height-1 (lower right corner). This function can be used to change the coordinates of the window (so, for example, it ranges from 0,0 to 1,1, or, to position the origin at the center, from (-1,-1 to 1,1). Note that you may need to undraw and re-draw objects after a coordinate change.

Myro Graphics Objects Inherited Methods:
Methods inherited by all graphics objects:
   setFill( color )
   setOutline( color )
   setWidth( pixels )
   draw(aGraphWin) - Used to draw the object onto a graph window. Once drawn, updates are automatic.
   undraw() - Removes the object from a graph window.
   move( dx, dy ) - Relative to current location.
   clone() - Returns a reference to a clone of the object.

Point
   Point( x, y) - Constructor
   getX()
   getY()

Line
   Line(point1, point2) - Constructor
   getCenter() - returns a point at the line center.
   setArrow("first" / "last" / "both" / "none")
   getP1()
   getP2()

Circle
   Circle(centerPoint, radius) - Constructor
   getCenter()
   getRadius()

Oval
   Oval(point1, point2) - Constructor
   getCenter()
   getP1()
   getP2()

Rectangle
   Rectangle(point1, point2)
   getCenter()
   getP1()
   getP2()

Image
   Image(centerPoint, imageFileName) - Constructor
**Polygon**

Polygon(point1, point2, ...) - Constructor (individual points)
Polygon([p1,p2,p3...]) - Constructor (list of points)
getPoints() - Returns a list of points.

**Text**

Text(footerPoint, string) - Constructor
setText(string)
getText()
getAnchor()
setFace(family)
setSize(point)
setStyle('normal'/'bold'/'italic')
setTextColor(color)

**Example Programs:**

```python
# Draw SIN over X from -4 to 4
from myro import *
from math import sin

# Create a new Window
myWin = GraphWin("Sine",500,100)

# Set the coordinate system appropriate for displaying this functions.
myWin.setCoords(-4.0,-1.0, 4.0,1.0)

yAxis = Line( Point(0.0,-1), Point(0.0,1) )
yAxis.draw(myWin)

xAxis = Line( Point(-4.0, 0), Point(4, 0) )
xAxis.draw(myWin)

for n in range(0,400):
    x = (n - 200) / 50.0
    y = sin(x)
    p = Point(x,y)
    p.draw(myWin)
    wait(0.01)
```

```python
# Bouncing Ball
from myro import *

aWindow = GraphWin("Pong", 500,500)

xPos = 50
yPos = 50
xDelta = -2
yDelta = 5

aBall = Circle( Point(xPos,yPos), 10)
aBall.setFill( color_rgb(255,0,0) )
aBall.draw(aWindow)

while timeRemaining(60):
    if (0 > xPos) or (500 < xPos):
        xDelta = - xDelta
    if (0 > yPos) or (500 < yPos):
        yDelta = - yDelta

    xPos = xPos + xDelta
    yPos = yPos + yDelta

    aBall.move(xDelta, yDelta)
    wait(0.01)
```