

## Graphics Library API

Each bolded word represents the ***constructor*** for instances of that class.

**GraphWin**([<title>, [<width>, [<height>] ] ])

setBackground(<color>)	changes the background color
close()	closes the window
getMouse()	waits for a mouse click and returns the Point where it occurred
getWidth()	returns the width of the window
getHeight()	returns the height of the window

**Point**(<x\_coord>, <y\_coord>)

getX()	returns the X coordinate
getY()	returns the Y coordinate

**Line**(<point1>, <point2>)

getCenter()	returns the mid Point of the line
getP1()	returns the start Point of the line
getP2()	returns the end Point of the line

**Circle**(<centerPoint>, <radius>)

getCenter()	returns the center Point of the circle
getRadius()	returns the radius of the circle

**Rectangle**(<upper\_left\_point1>, <lower\_right\_point2>)

getCenter()	returns the center Point of the rectangle
getP1()	returns the Point at the upper left corner
getP2()	returns the Point at the lower right corner

**Oval**(<point1>, <point2>)

getCenter()	returns the center Point of the oval
getP1()	returns the Point at the upper left corner of the bounding box
getP2()	returns the Point at the lower right corner of the bounding box

**Polygon**(<point1>, ...)

getPoints()	returns a list of the Points in the polygon
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### **Text**(<anchorPoint>, <string>)

setText(<string>)	sets the text to the string
getText()	returns the current text
getAnchor()	returns the anchor Point
setFace(<family>)	sets the font face, e.g., 'arial', 'courier'
setSize(<point>)	sets the font size (5-36 are legal)
setStyle(<style>)	sets the font style, e.g., 'bold', 'italic'
setTextColor(<color>)	sets the text color

### **Entry**(<anchorPoint>, <width>)

getAnchor()	returns the anchor Point
getText()	returns the current text
setText(<string>)	sets the text to string
setSize(<point>)	sets the found size (5-36 are legal)
setStyle(<style>)	sets the font style
setTextColor(<color>)	sets the text color

All objects that can be drawn in a window (Point, Line, Circle, Oval, Rectangle, Polygon, Text, Entry) have some common methods (with some exceptions):

setFill(<color>)	sets the interior of the object to color
setOutline(<color>)	sets the outline of the object to color Does NOT work for Entry objects
setWidth(<pixels>)	sets the width of the outline Does NOT work for Point, Text or Entry objects
draw(<window>)	draws the object in the window
undraw()	undraws the object
clone()	returns a duplicate of the object (in an undrawn state)
move(<dx>, <dy>)	moves the object dx units in the x direction and dy units in the y direction