

## tkinter Graphics

### Classes:

1. TK()
  - a. update() – used to refresh canvas
  - b. time.sleep(some\_number)
2. Button (tk, text = “some text”, command = some\_method)
  - a. pack()
3. Canvas (tk, width =500, height =500, fill = some\_color)
  - a. pack()
  - b. create\_line(x1,y1,x2,y2)
  - c. create\_rectangle (x1,y1,x2,y2)
  - d. create\_arc((x1,y1,x2,y2, extent = degrees, style=ARC)
    - i. can be used to draw arcs, ovals, or circles
  - e. create\_polygon((x1,y1,x2,y2,x3,y3,...)
  - f. you can add fill and outline to any of above methods
  - g. create\_text((x1,y1, text =”some text”, font=(“font”,size))
  - h. PhotoImage (file =”file\_name.gif”)
  - i. create\_image (x,y, image=some\_image)
    - i. before creating the image assign the file name to an image:  
image = PhotoImage(file=”file\_name.gif”)
    - ii. only gifs work with tkinter
  - j. move(item\_id, x\_direction, y\_direction)