

Movie Code:

Given the following functions and sprites, describe what the output frames would look like, in general, for the whole movie.



mario0.png | mario1.png | mario2.png | mario3.png | mario4.png

```
def spriteMovie():
    spritePath=r"/Users/Allison/Desktop"
    framePath=r"/Users/Allison/Desktop/Movie"
    delta=5
    x=5
    direction="right"
    for frame in range(1,101):
        canvas=makeEmptyPicture(200,100,green)
        spriteNum=(frame-1)%4+1
        mario="mario%.1d.png"%spriteNum
        sprite=spritePath + os.sep + mario
        marioSprite=makePicture(sprite)
        if(direction == "left"):
            marioSprite=flip(marioSprite)
        marioWidth=getWidth(marioSprite)
        marioHeight=getHeight(marioSprite)
        canvasWidth=getWidth(canvas)
        canvasHeight=getHeight(canvas)
        copyInto(marioSprite,canvas,x,canvasHeight-marioHeight)
        frameName=framePath+os.sep+"marioMovie%.3d.jpg"%frame
        #print frameName
        writePictureTo(canvas, frameName)
        x=x + delta
        if x < 5 or x > canvasWidth-marioWidth-5:
            delta = delta * -1
            if(direction == "right"):
                direction = "left"
            elif(direction == "left"):
                direction = "right"

def flip(pic):
    destX = getWidth(pic)-1
    canvas = makeEmptyPicture(getWidth(pic),getHeight(pic))
    for x in range(0,getWidth(pic)):
```

```
for y in range(0, getHeight(pic)):
    fromPixel = getPixel(pic,x,y)
    toPixel = getPixel(canvas,destX,y)
    setColor(toPixel,getColor(fromPixel))
    destX = destX - 1
return canvas
```

Short Answer:

What is the basic idea behind chromakey?

What approach can we use to cycle through sprites?

How do we detect if a sprite or text will hit an edge of the frame?
