def prj2():

    picture = makePicture(pickAFile())
    newpic = makeEmptyPicture(1000, 736, white)

    # picture at left corner
    targetX = 0
    for sourceX in range(0, getWidth(picture)):
        targetY = getHeight(newpic) - getHeight(picture)
        for sourceY in range(0, getHeight(picture)):
            px = getPixel(picture, sourceX, sourceY)
            cx = getPixel(newpic, targetX, targetY)
            setColor(cx, getColor(px))
            targetY = targetY + 1
            targetX = targetX + 1

    # picture 500 pixels over
    targetX = 500
    for sourceX in range(0, getWidth(picture)):
        targetY = getHeight(newpic) - getHeight(picture)
        for sourceY in range(0, getHeight(picture)):
            px = getPixel(picture, sourceX, sourceY)
            cx = getPixel(newpic, targetX, targetY)
            setColor(cx, getColor(px))
            targetY = targetY + 1
            targetX = targetX + 1

    # picture 310 pixels up
    targetX = 0
    for sourceX in range(0, getWidth(picture)):
        targetY = 0
        for sourceY in range(0, getHeight(picture)):
            px = getPixel(picture, sourceX, sourceY)
            cx = getPixel(newpic, targetX, targetY)
            setColor(cx, getColor(px))
            targetY = targetY + 1
            targetX = targetX + 1

    # picture 310 pixels up and 500 over
    targetX = 500
    for sourceX in range(0, getWidth(picture)):
        targetY = 0
for sourceY in range(0, getHeight(picture)):
    px = getPixel(picture, sourceX, sourceY)
    cx = getPixel(newpic, targetX, targetY)
    setColor(cx, getColor(px))
    targetY = targetY + 1
    targetX = targetX + 1

# picture 310 pixels up and 500 over
targetX = 412
for sourceX in range(193, 356):
    targetY = 345
    for sourceY in range(103, 213):
        px = getPixel(picture, sourceX, sourceY)
        cx = getPixel(newpic, targetX, targetY)
        setColor(cx, getColor(px))
        targetY = targetY + 1
        targetX = targetX + 1

doubleLight(newpic)

increaseRed(newpic)

repaint(newpic)

def doubleLight(newpic):
    for x in range(412, 575):
        for y in range(345, 455):
            pixel = getPixel(newpic, x, y)
            setColor(pixel, makeLighter(makeLighter(getColor(pixel))))

def increaseRed(newpic):
    for x in range(412, 575):
        for y in range(345, 455):
            px = getPixel(newpic, x, y)
            value = getRed(px)
            setRed(px, value * 5)