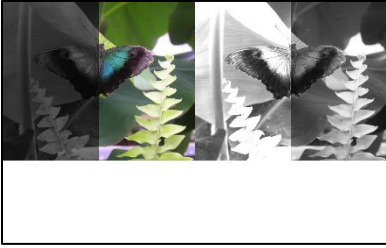


Corinne Wenzel

Completed



Original



```
# Corinne Wenzel, 3-15-21
def copy(pic,canvas,startX,endX,targetX):
    for sourceX in range(startX,endX) :
        targetY = 0
        for sourceY in range(0,getHeight(pic)):
            color = getColor(getPixel(pic,sourceX,sourceY))
            setColor(getPixel(canvas,targetX,targetY),color)
            targetY = targetY + 1
        targetX = targetX + 1

def grayScale(picture) :
    for p in getPixels(picture) :
        intensity = (getRed(p)+getGreen(p)+getBlue(p))/3
        setColor(p,makeColor(intensity,intensity,intensity))

def lighten(picture) :
    for x in range(0,getWidth(picture)) :
        for y in range(0,getHeight(picture)) :
            px = getPixel(picture,x,y)
            color = getColor(px)
            color = makeLighter(color)
            color = makeLighter(color)
            setColor(px,color)

def darken(picture) :
    for x in range(0,getWidth(picture)) :
        for y in range(0,getHeight(picture)) :
            px = getPixel(picture,x,y)
            color = getColor(px)
            color = makeDarker(color)
            color = makeDarker(color)
            setColor(px,color)

def collage():
    picture = makePicture(getMediaPath("butterfly2.jpg"))
    width = getWidth(picture)
    canvas = makeEmptyPicture(width*2,736)
    width2 = getWidth(canvas)
    copy(picture,canvas,0,width,0)
    grayScale(picture)
    copy(picture,canvas,0,width,width2/2)
    darken(picture)
    copy(picture,canvas,0,width/2,0)
    lighten(picture)
```

```
lighten (picture)
copy (picture, canvas, 0, width/2, width)
show (canvas)
```