

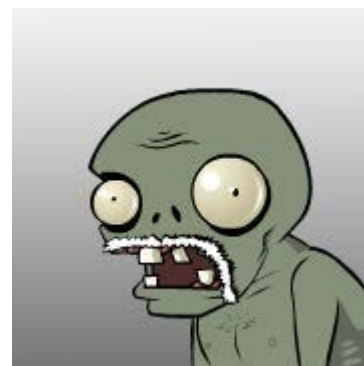
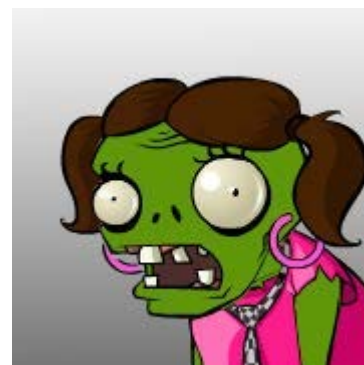


我爱学习，学习使我快乐

小组名称：300.75

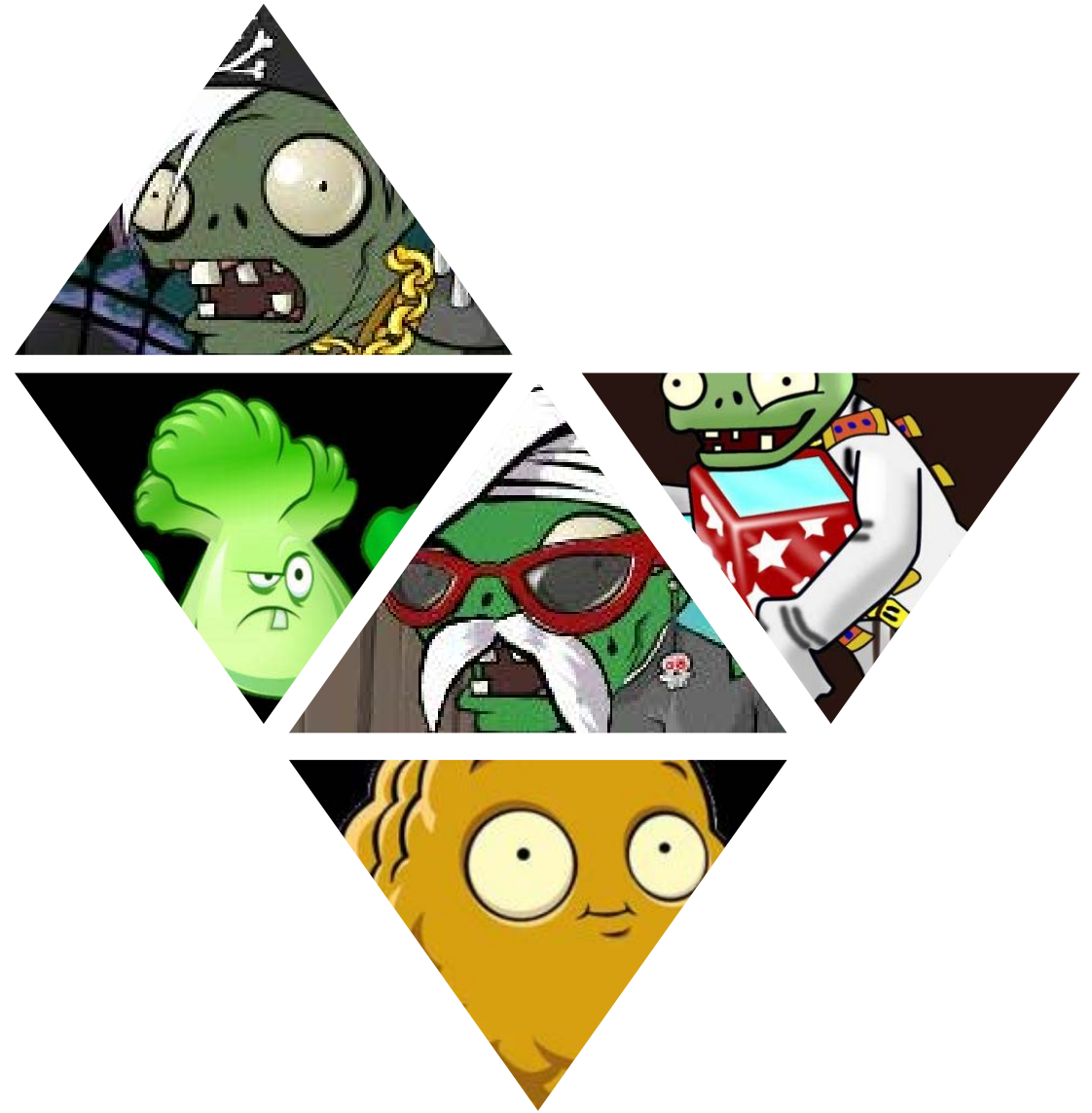
小组成员：邵心怡，曾心荷，杨煊

Background



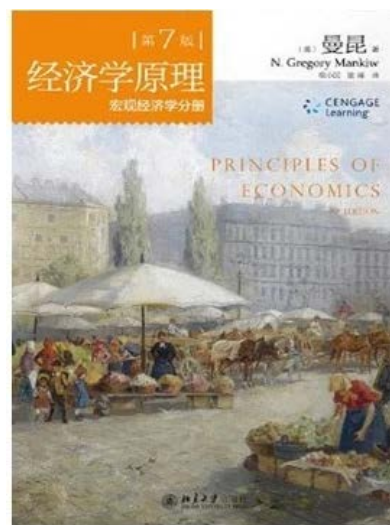
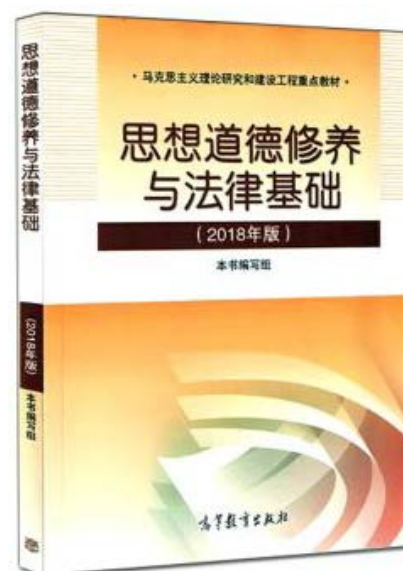
Plants vs. Zombies

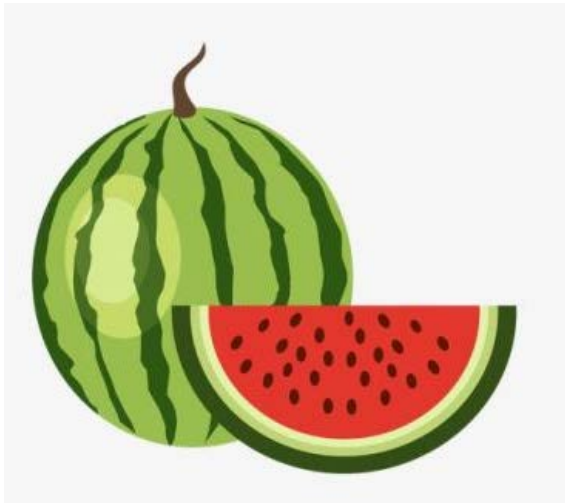
Game of the year



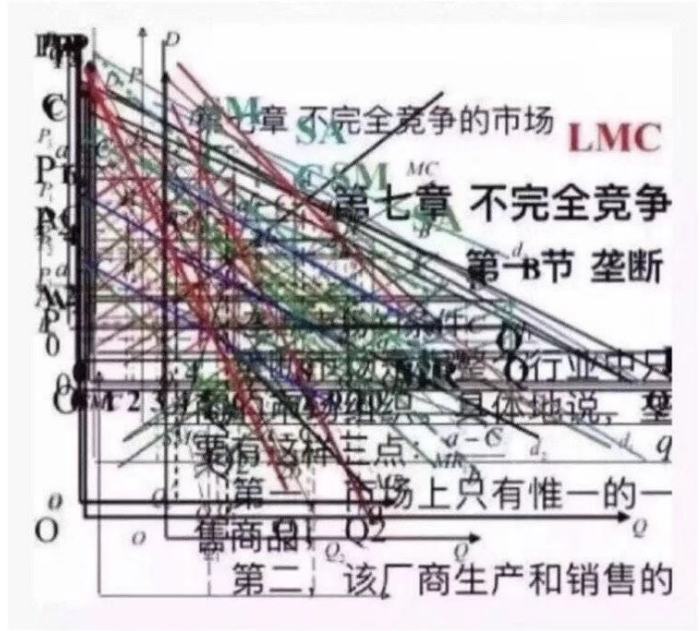
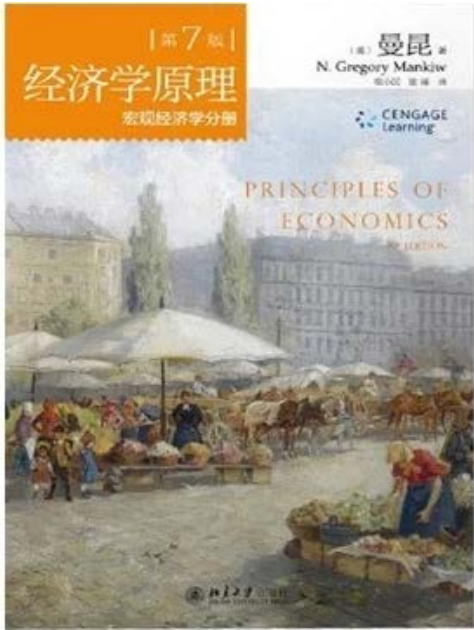
“
Plants = ???

DDL



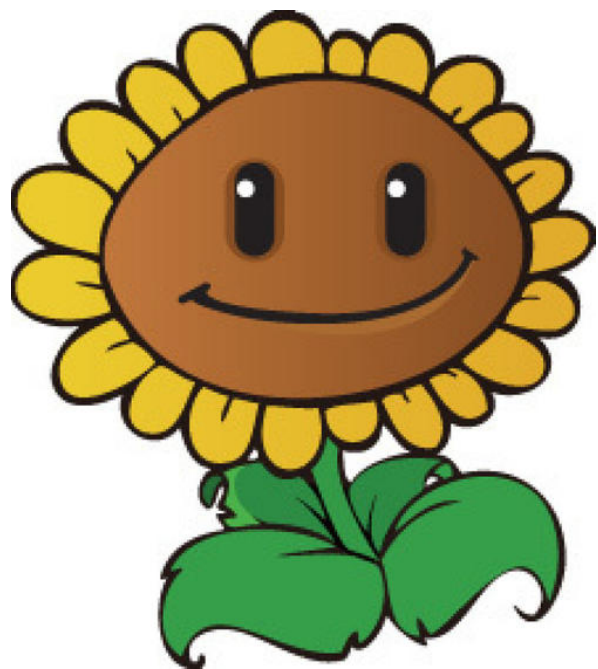


$$\int_a^b f(x) dx$$



DDL

压力





麻将



小说



电视剧





Programming

1

```
GENERATOR_JINGYUAN_EVENT = pygame.USEREVENT + 3  
pygame.time.set_timer(GENERATOR_JINGYUAN_EVENT, 2000)
```

```
GENERATOR_SHUFEN_EVENT = pygame.USEREVENT + 4  
pygame.time.set_timer(GENERATOR_SHUFEN_EVENT, 1000)
```

pygame.time.set_timer()

在事件队列上重复创建事件，在每给定的毫秒数上出现在事件队列上

2

攻击与死亡

判断是否有“经原”，每个都发射曲线
娱乐项目死亡的判定

kill()函数 *remove the Sprite from all Groups*

```
if event.type == GENERATOR_JINGYUAN_EVENT:
    if len(jingyuanList) > 0:
        for jingyuan in jingyuanList:
            quxian = Quxian(jingyuan.rect, size)
            quxianList.add(quxian)
```

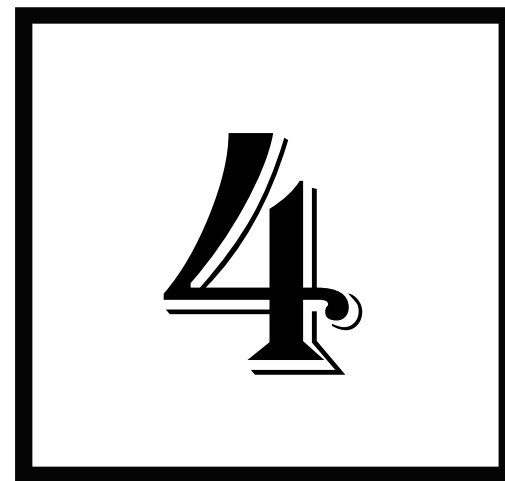
#爆炸图案与消失的判别

```
def update(self, *args):
    if self.energy > 0:
        if self.rect.left > 0:
            self.rect.left -= self.speed
    else:
        if self.dietimes > 9:
            if self.dietimes > 24:
                self.kill()
            else:
                self.isAlive = False
                self.dietimes += 1
        else:
            self.image = self.dieimages
            self.dietimes += 1
```

获取鼠标位置，根据位置确定选择了哪张卡片

```
if mouse_pressed[0]:  
    (x, y) = pygame.mouse.get_pos()  
  
    # 选择卡片  
    if 330 <= x <= 380 and 10 <= y <= 80 and int(score) >= 50:  
        choose = 1  
    elif 400 <= x <= 450 and 10 <= y <= 80 and int(score) >= 50:  
        choose = 2
```

```
if choose == 2:
    #拖到一个大概位置自己调整
    trueX = x // 100 * 100
    trueY = y // 120 * 120
    canHold = True
    for lesson in studyList:
        if lesson.rect.left == trueX and lesson.rect.top == trueY:
            canHold = False
            break
    if not canHold or trueY < 100:
        break
    jingyuan= Jingyuan((trueX, trueY))
    jingyuanList.add(jingyuan)
    studyList.add(jingyuan)
    choose = 0
    #花钱
    score -= 50
    myfont = pygame.font.SysFont('arial', 30)
    txtImg = myfont.render(str(score), True, (0, 0, 0))
```



拖动图片，更新积分
自动到达规定的位置

收集太阳: `a.rect.collidepoint()` 检测一个点是否包含在该 *Rect* 对象内

```
for stress in stressList:
    if stress.rect.collidepoint((x, y)):
        stress.is_click = True
        score = int(score) + 50
        myfont = pygame.font.SysFont('arial', 30)
        txtImg = myfont.render(str(score), True, (0, 0, 0))
```

子弹攻击: `pygame.sprite.collide_rect_ratio()` 两个精灵间冲突的检测
如果碰撞了, 娱乐项目生命值减少, 子弹消失。

```
for jifen in jifenList:
    for playing in playingList:
        if pygame.sprite.collide_rect_ratio(0.5)(jifen, playing):
            playing.energy -= 0.5
            jifenList.remove(jifen)
```





Further
Improvement

动画

植物和僵尸无法摆动

音效

植物对僵尸进行攻击时
没有击中的音效

停顿

僵尸走到植物面前时
不会停下并且啃咬

THANK YOU FOR YOUR LISTENING

邵心怡 曾心荷 杨煊