

PART B - PROBLEM 4: IMPLEMENTING A SIMULATION WITH DRUGS (10 points possible)

In this problem, we consider the effects of both administering drugs to the patient and the ability of virus particle offsprings to inherit or mutate genetic traits that confer drug resistance. As the virus population reproduces, mutations will occur in the virus offspring, adding genetic diversity to the virus population. Some virus particles gain favorable mutations that confer resistance to drugs.

RESISTANTVIRUS CLASS

In order to model this effect, we introduce a subclass of `SimpleVirus` called `ResistantVirus`. `ResistantVirus` maintains the state of a virus particle's drug resistances, and accounts for the inheritance of drug resistance traits to offspring. Implement the `ResistantVirus` class.

Help

```
1 # Enter your definition for the ResistantVirus class in this box.
2 # You'll enter your code for TreatedPatient on the next page.
3
```

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