

Final Project

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Question 1

Section 1

A car with a full tank of gas drives 80 miles per hour for 3 hours before running out of gas. How many miles can the car go per tank?

```
In [21]: speed = 80 # miles per hour
time = 3 # hours

distance = speed * time

print("The car can go", distance, "miles per tank.")
```

The car can go 240 miles per tank.

Question 1 has been completed in python code

- ☒ Question 1
- ☐ Question 2
- ☐ Question 3

Question 2

Section 2

A runner travels a half marathon (13.1 miles) in 3 hours. How fast was this runner going in miles per hour?

```
In [22]: distance = 13.1
time = 3

speed = distance / time

print("The runner can go at a speed of", speed, "miles per hour.")
```

The runner can go at a speed of 4.366666666666666 miles per hour.

Question 2 has been completed in python code

- ☒ Question 1
- ☒ Question 2
- ☐ Question 3

Question 3

Section 3

The spread of a virus is exponential. If 5 people are infected and each person infects 2 other people, how many people have been infected after 5 rounds of infection?

```
In [23]: infected = 5
rounds = 5

for _ in range(rounds):
    infected *= 2

print("The number of infected people after 5 rounds is:", infected)
```

The number of infected people after 5 rounds is: 160

Question 3 has been completed in python code

- ☒ Question 1
- ☒ Question 2
- ☒ Question 3

```
In [24]: from IPython.display import Image  
  
image_path = r"C:\Users\user\Pictures\project_image.jpg"  
  
Image(filename=image_path)
```

Out[24]:

