

1. What is the output of the following Python code?

```
"""Matt Welz
ENGR 104
Quiz 1"""

# Problem 1

velocity = 45 #mph
time = 2      #hours

print(f"The total distance travelled was {velocity * time} miles. ")
```

Output of the Code Above:

The total distance travelled was
90 miles.

2. What is the output of the following Python code?

```
a, b = 12, 4
c = "Cat"
d = round(b / a, 2)
e = b ** 2

print(f"The value of d is {d}.")
print(f"The value of e is {e}.")
print(f"The value of c is {c}.")
```

notes

$$4/12 = 0.\bar{3}$$
$$4^2 = 16$$

Output of the Code Above:

The value of d is .33.
The value of e is 16.
The value of c is cat.

3. The velocity of a ball thrown straight up with initial velocity $v_0 = 20$ m/s at time t in seconds is given by

$$v(t) = v_0 - gt$$

where the gravitational constant g is 9.81 m/s². Write Python code below that computes and prints the velocity at $t = 2$. Use (descriptive) variables to store v_0 , v , g , and t as you do your calculation.

$$v_0 = 20$$

$$g = 9.81$$

$$t = 2$$

$$velocity = \cancel{20} - g * t$$

print(f"The velocity is {velocity}.")