

Quiz 2

1. What does the following sample of code print? (If you think it will cause an error, say so)

```
speed = 15
time = 2
dist = speed * time

def calc_dist(speed,time):
    dist = speed * time
    return dist

speed = speed * 2
calc_dist(speed,time)

print(dist)
```

2. What does the following sample of code print? (If you think it will cause an error, say so)

```
def collatz(number):
    if number % 2:
        result = 3 * number + 1
    else:
        result = number / 2
    return result

number = 15
collatz(number)
print("The result is:",result)
```

3. Consider the following program:

```
g = 10

def max_height(vi,theta):
    math.radians(theta)
    vy = vi * math.sin(theta)
    h = vy**2 / 2 / g
    return h

theta = 30 #launch angle, in degrees
vi = 10 #intl speed, m/s
```

(a) Write some code to finish the program (that is, call the function and print the result)

(b) With the given numbers for `vi` and `theta`, the programmer expected `max_height` to evaluate to “2.5”, but finds instead the result is something completely different. Where is the error?