Self-Review Questions
Variables and Algorithms

Q4. Write a program that generates a number series by applying the following rule:

$a_n = a_{n-1} * a_{n-2}$

In other words, given the first 2 terms, generate the next 5 terms of the series where each term is the product of the previous 2.

Sample Input:

```
1
2
```

Sample Output:

```
1, 2, 2, 4, 8, 32, 256
```

Q5. You have decided to place Pakistan on the map of fast car manufacturers. Your team is going to build a car that weighs `lb` pounds and goes from *0 to 60 mph* in `t` seconds. You are required to take `t` and `lb` as input and print the force in *Newtons* that the engine must produce. Where `t` is a float and `lb` is an integer.

Calculation:
You may assume that *1 mile = 1.6 km = 1600 m*
You may assume that *1 pound = 0.45 kg*
Use $v = u + a*t$ to compute acceleration, where u is the speed at the start.
Use $F = m * a$ to compute force.

Implementation Notes:
You will need to store the following information.
`v` to store 60 miles/hour in meter/second.
`a` to store the acceleration in m/s^2.
`m` to store the weight in kg.
`F` to store the force in N.
Take special care to convert each quantity into its appropriate units before use.

Sample Input:
1.0
2137

Sample Output:
The engine must produce 25644.0 Newtons of force.

Code Snippet:

```
t =
lb =

v =
a =
F =

print("The engine must produce", F, "Newtons of force.")
```