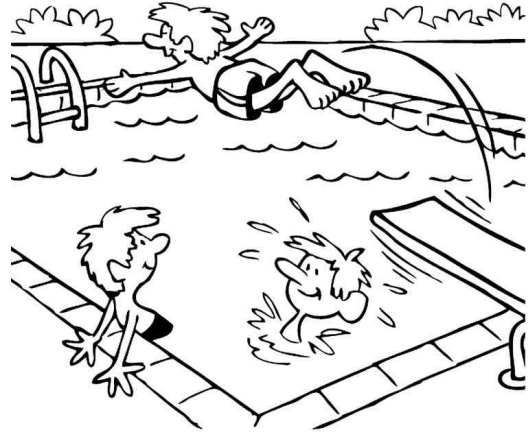


Because of the evaporation, the volume of water contained in a pool decreases by 3% per week. The initial volume of water is 90 m<sup>3</sup>.

Use your calculator to answer the following questions, and explain your method.

1. Compute the volume of water in the pool after 2 weeks, after 8 weeks.
2. Jack says that the volume of water will have decreased by 30% after 12 weeks. Do you agree with him? Explain your answer.



In order to compensate for the loss of water, 2.4 m<sup>3</sup> of water are added in the pool every week. Let's consider the following PYTHON script :

## Python

```
from math import *  
  
def pool():  
    n = 0  
    u = 90  
    while u > 88:  
        n = n + 1  
        u = 0.97 * u + 2.4  
    return n
```

3. Describe and explain this script. How does it relate to the problem?
4. What is the result when you execute `pool()`? What does it mean? Draw a conclusion.