

Beer problem



A beer provider determines to give away free beer in its 100 anniversary. For every beer, you have an empty bottle and a cap after drinking. You can redeem an extra bottle of beer for every 2 bottles or 4 caps from the provider.

- (a) Suppose you have 10 bottles of beer, how many bottles of beer altogether (including the originally 10) you can drink?
- (b) Find $f(n)$, the total number of bottles of beer if originally you have n bottles.

Note: You are **not** allowed to borrow empty bottles or caps from others.

You may use EXCEL or other software to help you to get $f(n)$.

You only need to provide the answers and not the lengthy logics behind.