CS318 – Project 04 – Dorothy and Emeralds

Due Date is posted on Blackboard.

Project Description:

One day Dorothy was wandering down the Yellow Brick Road and suddenly found **N** baskets containing emeralds.   Each basket contains an initial number of emeralds, **E**.

Dorothy picks up a basket and empties the emeralds, **E**, onto the ground. Each time Dorothy empties a basket, Glinda (the good witch) appears and fills the same basket with the **floor of [E/2]** emeralds.

Glinda gives Dorothy a number of **minutes** to collect as many emeralds as she can. In a single minute, Dorothy can take all the emeralds in a basket, regardless of the number of emeralds in it.

Find the **maximum number of emeralds** Dorothy can collect in the given number of minutes.

Requirement:

Find the most efficient way to do this problem. You will be graded on the conciseness, organization, readability and efficiency of your solution.

Sample Run:

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**** Dorothy and Emeralds ****

Enter the number of baskets: 13

Enter the number of minutes: 4

Dorothy has gathered 356 emeralds!
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