BACK   Candles   ⌄

DESCRIPTION   SOLUTIONS 6834   COMMENTS 25   ❯   CODEWRITING   SCORE: 300/300

When a candle finishes burning it leaves a leftover. `makeNew` leftovers can be combined to make a new candle, which, when burning down, will in turn leave another leftover.

You have `candlesNumber` candles in your possession. What's the total number of candles you can burn, assuming that you create new candles as soon as you have enough leftovers?

Example

For `candlesNumber = 5` and `makeNew = 2`, the output should be
`candles(candlesNumber, makeNew) = 9`.

Here is what you can do to burn `9` candles:

- burn `5` candles, obtain `5` leftovers;
- create `2` more candles, using `4` leftovers (`1` leftover remains);
- burn `2` candles, end up with `3` leftovers;
- create another candle using `2` leftovers (`1` leftover remains);
- burn the created candle, which gives another leftover (`2` leftovers in total);
- create a candle from the remaining leftovers;
- burn the last candle.

Thus, you can burn `5 + 2 + 1 + 1 = 9` candles, which is the answer.

Input/Output

- **[execution time limit] 4 seconds (js)**

- **[input] integer candlesNumber**

  The number of candles you have in your possession.

  Guaranteed constraints:
  `1 ≤ candlesNumber ≤ 15`.

- **[input] integer makeNew**

  The number of leftovers that you can use up to create a new candle.

  Guaranteed constraints:
  `2 ≤ makeNew ≤ 5`.

👍   👎   🚩