Banana Man

Filename: BANANA

Ali grows bananas at an oasis in the desert. Harvest time has come and Ali has had a successful crop of 100,000 bananas. Now he needs to get them to market 500 miles away, but he has a bit of a problem he would like your help with. To get his bananas to market he must use his camel. This camel can carry a maximum of 500 bananas, but must be coerced with 1 banana for every mile it travels. To get his product to market with any left, Ali will have to move the bananas in several steps. Ali would like a program which will tell him how many bananas he gets to market given how far he travels in-between stops.

For example, suppose Ali goes 100 miles in-between stops. On his first trip, he will load up his camel with 500 bananas. He must feed the camel 100 bananas to get to the first midway point. There, he will drop off 300 bananas, leaving 100 for the trip back. After moving bananas to this first stop, he will have 60,100 bananas left. By the time he gets to market, he will have 7,900 bananas left.

By trying out different values Ali can determine what the best approach will be.

The Input:

There will be multiple input sets. Each input set consists of one positive integer on a line by itself for the distance in-between stops. Input will be terminated by end of file.

The Output:

For each input case, output the number of bananas Ali gets to market in the form "By moving the bananas # miles per step, # bananas get to market."

Sample Input:

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100
96
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Sample Output:

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By moving the bananas 100 miles per step, 7900 bananas get to
market.
By moving the bananas 96 miles per step, 8300 bananas get to
market.
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