Hi, I’m the Taxman. Do you want to play in numerical order (you decide how many)?

You try to beat the Taxman.

We start with a list of whole numbers in numerical order (you decide how many).

You take a number from the list -- the Taxman gets all the factors of your number that are still left. Your number and all its factors are then deleted from the list.

For example, suppose you want 10 numbers to be in the list. Then the list would be: 1 2 3 4 5 6 7 8 9 10.

If you took 6, the Taxman would get 1, 2, and 3. And the new list would be: 4 5 7 8 9 10.

The Taxman must get something every time so you can only pick a number that has factors left.

When none of the remaining numbers has any factors, the Taxman gets them!

Your score is the sum of the numbers you take. If you want to give up, take 0.

Good luck!

How many numbers do you want in the list? 10.

The list is: 1 2 3 4 5 6 7 8 9 10.

You take 8. Your total is 8. I get 1, 2, 4. My total is 7.

New list: 3 5 6 7 9 10.


New list: 5 6 7 10.

You take 6. There are no factors of 6 for me. Are you trying to short-change the Taxman?

You take 9. 5 is not in the list -- try again.

You take 10. Your total is 27. I get 5. My total is 15.

New list: 6 7. Because no factors of any number are left.

You take 6. I get 6, 7. My total is 28.

TAXMAN 28, YOU 27. The Taxman wins.

Is it always possible to beat the Taxman?

Max says, “I want to play TAXMAN so that I can get the maximum score for each list.”

TAXMAX

Max says, “I want to play TAXMAN so that I can get the maximum score for each list.”

Taxmin

Minnie says, “I want to play TAXMAN so that I can get the minimum score for each list.”
AGAIN (1=Yes, 0=No)!

HOW MANY NUMBERS DO YOU WANT IN THE LIST?

THE LIST IS:
1 2 3 4 5 6 7 8 9 10

YOU TAKE?