

The Function Game: List 1

Instructions

- Don't show your list to the other players!
- The player with List 1 goes first.
- On your turn, your group will give you numbers for input. Figure out the output (without them seeing your work!) and tell them.
- If an input doesn't work for your function, say "that's not in my domain".
- They will try to guess what you're doing. When they get it right, the next player can take their turn being a function.
- Players earn 1 point for each function they guess correctly!

List 1

Double the number, then add six.

Subtract one from the number. Then, calculate one *divided by* your answer.

Cube the number. Then, subtract the original number from it.

If you're given an odd number, reply "1". If you're given an even number, reply "2". Fractions are not in the domain of this function.

* If you get this far, begin making up your own functions!

The Function Game: List 2

Instructions

- Don't show your list to the other players!
- The player with List 1 goes first.
- On your turn, your group will give you numbers for input. Figure out the output (without them seeing your work!) and tell them.
- If an input doesn't work for your function, say "that's not in my domain".
- They will try to guess what you're doing. When they get it right, the next player can take their turn being a function.
- Players earn 1 point for each function they guess correctly!

List 2

Add three to the number, then double it.

No matter what number you're given, act like you're figuring it out for a few seconds, but then just answer "-3".

First, add two to the number and remember the answer. Then, subtract two from the original number and remember that. Then, multiply those two answers by each other.

Add one to the number, then square it.

* If you get this far, begin making up your own functions!

The Function Game: List 3

Instructions

- Don't show your list to the other players!
- The player with List 1 goes first.
- On your turn, your group will give you numbers for input. Figure out the output (without them seeing your work!) and tell them.
- If an input doesn't work for your function, say "that's not in my domain".
- They will try to guess what you're doing. When they get it right, the next player can take their turn being a function.
- Players earn 1 point for each function they guess correctly!

List 3

Take the opposite ("negative") of the number, then add three.

Square the number, then subtract four.

Square the number, then add one to it.

Give back the lowest prime number that is greater than or equal to the number.

* If you get this far, begin making up your own functions!

The Function Game: List 4

Instructions

- Don't show your list to the other players!
- The player with List 1 goes first.
- On your turn, your group will give you numbers for input. Figure out the output (without them seeing your work!) and tell them.
- If an input doesn't work for your function, say "that's not in my domain".
- They will try to guess what you're doing. When they get it right, the next player can take their turn being a function.
- Players earn 1 point for each function they guess correctly!

List 4

Divide the number by two.

Cube the number.

Give back the same number you were given.

Take the square root of the number. Then, round up to the nearest integer.

* If you get this far, begin making up your own functions!

The Function Game: Master List

List 1

Double the number, then add six.

Subtract one from the number. Then, calculate one *divided by* your answer.

Cube the number. Then, subtract the original number from it.

If you're given an odd number, reply "1". If you're given an even number, reply "2". Fractions are not in the domain of this function.

List 2

Add three to the number, then double it.

No matter what number you're given, act like you're figuring it out for a few seconds, but then just answer "-3".

First, add two to the number and remember the answer. Then, subtract two from the original number and remember that. Then, multiply those two answers by each other.

Add one to the number, then square it.

List 3

Take the opposite ("negative") of the number, then add three.

Square the number, then subtract four.

Square the number, then add one to it.

Give back the lowest prime number that is greater than or equal to the number.

List 4

Divide the number by two.

Cube the number.

Give back the same number you were given.

Take the square root of the number. Then, round up to the nearest integer.