

Lists and HOFs

(a) Determine the domain and range of the following Snap! blocks.

Domain: _____, _____

Range: _____

Domain of Foo: _____

Range of Foo: _____

Type of Bar: _____



(b) Fill in the information table for the Higher Order Functions.

Higher Order Function	Domain	Range	Notes

Function
Input

	Type	Domain	Range	Notes
map				
keep				
combine				

(c) Fill in the blanks so that Keep reports a list of the numbers from MyList.

MyList = list(3, hello, 8, goodbye, 4, 7)

Keep items such that (_____) from (_____)

(d) Write an expression that reports the sum of the squares of the numbers in YourList.

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YourList = list(4, 2, 3, 1)
```

(e) Complete the following block so that it works as described.

A Scratch code block with a green 'prepend every' block containing the text 'anti' and a list containing 'dote-pasto-gone-body'. A tooltip shows the words 'antidote antipasto antigone antibody'. Below it is a yellow block with '+ prepend + every +' and two orange buttons labeled 'word' and 'sentence'.

(f) Describe the output of the following code. OurList is a list of words.

A Scratch code block: 'combine with' block containing a 'join' block with two empty input fields and 'items of' block. Below it is a 'map' block containing 'letter length of' block with an empty input field, 'of' block with an empty input field, and 'over' block with 'Our List'.

Challenge Problem

(a) Given a list of salaries, some of which go into the millions, return the salary of the lowest-paid millionaire. You are allowed to use a () min () helper block that takes two numbers as inputs and reports the minimum of the two numbers.

A Scratch code block: 'lowest-paid millionaire' block containing a 'list' block with values '1', '2', '3000000', '4', '5000000', '6' and a tooltip showing '3000000'. Below it is a yellow block with '+ lowest-paid + millionaire +' and an orange button labeled 'list'.
