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Beginner Questions

(Please give your answers in the same format as the sample output)

Number	Question
Level 1	
1	Write a program that asks the user “Who’s your favourite astronaut?” and prints a message saying, "Your favourite astronaut is [Name]." Sample Input: Neil Armstrong Sample Output: Your favourite astronaut is Neil Armstrong. Your Input: Sally Ride
2	Create a list of programming languages used by women in technology. Print the list in alphabetical order. Sample Output: ['English', 'Spanish', 'French'] Given Input: Python, JavaScript, Ruby
3	Create a program that stores a list of inspiring women ('Marie Curie', 'Ada Lovelace', 'Katherine Johnson', 'Mae Jemison', 'Radia Perlman') in STEM. Then, ask the user to input a number between 0 and 4 inclusive and print the name at that index. Sample Output: (output only the name) Albert Einstein Given Input:

	User enters: 3
4	Create a list of five women who have contributed to technology. Print each name on a new line in reverse alphabetical order. Output Format: Name Name Name Given Input: Sheryl Sandberg Radia Perlman Grace Hopper Ada Lovelace Katherine Johnson
5	Create a program that stores a list of scientists. Ask the user to input a letter. Print all the names (each on a separate line) that start with that letter in the same order as given in the list. Sample Output: Charles Babbage Claude Shannon Craig Newmark Cathy Fosnot Chris Lattner Given Input: User enters: A List: names = ["Isaac Newton", "Albert Einstein", "Neils Bohr", "Charles Darwin", "Louis Pasteur", "Sigmund Freud", "Galileo Galilei", "Antoine Laurent Lavoisier", "Johannes Kepler", "Nicolaus Copernicus", "Michael Faraday", "James Clerk Maxwell", "Claude Bernard", "Franz Boas", "Werner Heisenberg", "Linus Pauling", "Rudolf Virchow", "Erwin Schrödinger", "Ernest Rutherford", "Paul Dirac", "Andreas Vesalius", "Tycho Brahe", "Comte de Buffon", "Ludwig Boltzmann", "Max Planck", "Marie Curie", "William Herschel", "Charles Lyell", "Pierre Simon de Laplace", "Edwin Hubble", "Joseph J. Thomson", "Max Born", "Francis Crick", "Enrico Fermi", "Justus Liebig", "Arthur Eddington", "William Harvey", "Marcello Malpighi", "Christiaan Huygens", "Carl Gauss", "Albrecht von Haller", "August Kekulé", "Robert Koch", "Murray Gell-Mann", "Emil Fischer", "Dmitri Mendeleev", "Sheldon Glashow", "James Watson", "John Bardeen", "John von Neumann", "Richard Feynman", "Alfred Wegener", "Stephen Hawking", "Anton van Leeuwenhoek",

	"Max von Laue"]
Level 2 (give only the answer and no other words) For example, don't write "The number of vowels is 5", just write only "5"	
1	Count how many numbers in the list are a multiple of 4. numbers = [12, 45, 8, 23, 16, 89, 4, 64, 72, 31, 50, 28, 90, 37, 48, 55, 76, 99, 20, 32, 60, 17, 80, 7, 40, 52, 88, 33, 24, 97, 36, 19, 44, 2, 96, 25, 84, 13, 68, 56, 3, 92, 75, 39, 29, 100, 21, 66, 70, 6, 14, 18, 9, 63, 47, 27, 22, 79, 30, 53, 26, 11, 54, 35, 58, 43, 62, 15, 95, 46, 59, 10, 85, 5, 41, 98, 34, 1, 42, 49, 82, 86, 67, 91, 38, 77, 51, 61, 81, 87, 83, 78, 57, 71, 74, 93, 94, 65, 73, 59]
2	Count the number of vowels in the given string (all characters in the string are in lower case). Vowels = ['a','e','i','o','u'] String = "zqweoprtyuiasdghjklxcvbnmpoiuytrewqlkjhgfdsamnbvcxzoxytrewqasdfghjklmnbvcxzqwertyuioplkjhgfds"
3	Print the longest word in the list words = ["apple", "banana", "strawberry", "grape", "pineapple", "orange", "blueberry", "watermelon", "kiwi", "mango", "peach", "apricot", "blackberry", "coconut", "cranberry", "dragonfruit", "elderberry", "fig", "gooseberry", "guava", "honeydew", "jackfruit", "kiwifruit", "lemon", "lime", "lychee", "mandarin", "mulberry", "nectarine", "olive", "papaya", "passionfruit", "pear", "persimmon", "plum", "pomegranate", "quince", "raspberry", "redcurrant", "starfruit", "tamarillo", "tangerine", "tomato", "ugli", "vanilla", "watermelon", "yuzu", "zucchini", "boysenberry", "cloudberry"]
4	Count how many words in the list have more than 5 letters. words = ["apple", "banana", "strawberry", "grape", "pineapple", "orange", "blueberry", "watermelon", "kiwi", "mango", "peach", "apricot", "blackberry", "coconut", "cranberry", "dragonfruit", "elderberry", "fig", "gooseberry", "guava", "honeydew", "jackfruit", "kiwifruit", "lemon", "lime", "lychee", "mandarin", "mulberry", "nectarine", "olive", "papaya", "passionfruit", "pear", "persimmon", "plum", "pomegranate", "quince", "raspberry", "redcurrant", "starfruit", "tamarillo", "tangerine", "tomato", "ugli", "vanilla", "watermelon", "yuzu", "zucchini", "boysenberry", "cloudberry"]
5	Print the element that appears most frequently in the list.

	numbers = [5, 8, 12, 5, 9, 15, 5, 7, 3, 8, 6, 5, 2, 8, 14, 9, 12, 5, 7, 3, 8, 10, 5, 6, 4, 8, 9, 13, 7, 5, 2, 8, 14, 9, 12, 5, 7, 3, 8, 10, 5, 6, 4, 8, 9, 13, 7, 5, 2, 8, 14, 9, 12, 5, 7, 3, 8, 10, 5, 6, 4, 8, 9, 13, 7, 5, 2, 8, 14, 9, 12, 5, 7, 3, 8, 10, 5, 6, 4, 8, 9, 13, 7, 5, 2, 8, 14, 9, 12, 5, 7, 3, 8, 10, 5, 6, 4, 8, 9, 13]
6	Compute the average length of words in the given list. Give your answer as a float. words = ["apple", "banana", "strawberry", "grape", "pineapple", "orange", "blueberry", "watermelon", "kiwi", "mango", "peach", "apricot", "blackberry", "coconut", "cranberry", "dragonfruit", "elderberry", "fig", "gooseberry", "guava", "honeydew", "jackfruit", "kiwifruit", "lemon", "lime", "lychee", "mandarin", "mulberry", "nectarine", "olive", "papaya", "passionfruit", "pear", "persimmon", "plum", "pomegranate", "quince", "raspberry", "redcurrant", "starfruit", "tamarillo", "tangerine", "tomato", "ugli", "vanilla", "watermelon", "yuzu", "zucchini", "boysenberry", "cloudberry"]
Level 3 (give only the answer and no other words) For example, don't write "The number of vowels is 5", just write only "5"	
1	Find the sum of the square of each number in the list numbers = [5, 8, 12, 5, 9, 15, 5, 7, 3, 8, 6, 5, 2, 8, 14, 9, 12, 5, 7, 3, 8, 10, 5, 6, 4, 8, 9, 13, 7, 5, 2, 8, 14, 9, 12, 5, 7, 3, 8, 10, 5, 6, 4, 8, 9, 13, 7, 5, 2, 8, 14, 9, 12, 5, 7, 3, 8, 10, 5, 6, 4, 8, 9, 13, 7, 5, 2, 8, 14, 9, 12, 5, 7, 3, 8, 10, 5, 6, 4, 8, 9, 13]
2	Find the index of the element containing the value "315" numbers = [12, 45, 78, 23, 89, 56, 90, 34, 67, 21, 5, 99, 87, 43, 76, 54, 32, 11, 66, 88, 101, 222, 333, 444, 555, 666, 777, 888, 999, 111, 213, 435, 678, 890, 321, 234, 567, 789, 432, 654, 876, 98, 123, 456, 789, 147, 258, 369, 741, 852, 963, 357, 159, 951, 753, 159, 852, 741, 639, 528, 417, 326, 235, 144, 278, 395, 183, 726, 819, 237, 564, 891, 320, 465, 678, 902, 147, 951, 357, 654, 846, 129, 738, 564, 372, 918, 246, 537, 729, 804, 612, 435, 729, 102, 948, 567, 234, 678, 901, 315, # 315 appears here 246, 135, 753, 864, 987, 204, 306, 708, 129, 537, 816, 402, 729, 153, 867, 534, 789, 102, 348, 267, 456, 789, 543, 231, 678, 321, 987, 543, 678, 432, 109, 328, 547, 266, 488, 699, 832, 740, 290, 157, 236, 478, 920, 346, 271, 843, 152, 964, 375, 839, 273, 645, 908, 123, 546, 789, 312, 645, 978, 246, 753, 159, 357, 264, 891, 678, 543, 901, 738, 465, 372, 912, 543, 276, 819, 357, 642, 975, 138, 429, 357, 123, 678, 456, 789, 312, 645, 978, 159, 456, 273, 789, 642, 975, 318, 492, 675, 321, 789, 654]
3	Find the number of times "11" occurs in the list numbers = [34, 56, 78, 90, 23, 45, 67, 89, 12, 98, 76, 54, 32, 21, 43, 65, 87, 109, 321, 543, 765, 987, 234, 456, 678, 890, 102, 213, 435, 657, 879, 111, 222, 333, 444, 555,

	666, 777, 888, 999, 112, 223, 334, 445, 556, 667, 778, 889, 990, 101, 202, 303, 404, 505, 606, 707, 808, 909, 110, 220, 330, 440, 550, 660, 770, 880, 990, 100, 200, 300, 400, 500, 600, 700, 800, 900, 150, 250, 350, 450, 550, 650, 750, 850, 950, 11, 123, 234, 345, 456, 567, 678, 789, 890, 901, 1002, 1103, 1204, 1305, 1406, 1507, 1608, 1709, 1800, 1901, 2002, 2103, 2204, 2305, 11, 2507, 2608, 2709, 2800, 2901, 3002, 3103, 3204, 3305, 3406, 3507, 3608, 3709, 11, 3901, 4002, 4103, 4204, 4305, 4406, 4507, 4608, 4709, 4800, 11, 5002, 5103, 5204, 5305, 5406, 5507, 5608, 5709, 5800, 5901, 6002, 11, 6204, 6305, 6406, 6507, 6608, 6709, 6800, 6901, 7002, 7103, 7204, 7305, 7406, 7507, 7608, 7709, 7800, 7901, 8002, 8103, 8204, 8305, 8406, 8507, 8608, 8709, 8800, 11, 9002, 9103, 9204, 9305, 9407, 9508, 9609, 9700, 9801, 9902, 10003, 10104, 10205, 10306, 10407, 10508, 10609, 10700, 10801, 10902, 11003, 11104, 11205]
4	Find the remainder when the 57th element is divided by 3 numbers = [34, 56, 78, 90, 23, 45, 67, 89, 12, 98, 76, 54, 32, 21, 43, 65, 87, 109, 321, 543, 765, 987, 234, 456, 678, 890, 102, 213, 435, 657, 879, 111, 222, 333, 444, 555, 666, 777, 888, 999, 112, 223, 334, 445, 556, 667, 778, 889, 990, 101, 202, 303, 404, 505, 606, 707, 808, 909, 110, 220, 330, 440, 550, 660, 770, 880, 990, 100, 200, 300, 400, 500, 600, 700, 800, 900, 150, 250, 350, 450, 550, 650, 750, 850, 950, 11, 123, 234, 345, 456, 567, 678, 789, 890, 901, 1002, 1103, 1204, 1305, 1406, 1507, 1608, 1709, 1800, 1901, 2002, 2103, 2204, 2305, 11, 2507, 2608, 2709, 2800, 2901, 3002, 3103, 3204, 3305, 3406, 3507, 3608, 3709, 11, 3901, 4002, 4103, 4204, 4305, 4406, 4507, 4608, 4709, 4800, 11, 5002, 5103, 5204, 5305, 5406, 5507, 5608, 5709, 5800, 5901, 6002, 11, 6204, 6305, 6406, 6507, 6608, 6709, 6800, 6901, 7002, 7103, 7204, 7305, 7406, 7507, 7608, 7709, 7800, 7901, 8002, 8103, 8204, 8305, 8406, 8507, 8608, 8709, 8800, 11, 9002, 9103, 9204, 9305, 9407, 9508, 9609, 9700, 9801, 9902, 10003, 10104, 10205, 10306, 10407, 10508, 10609, 10700, 10801, 10902, 11003, 11104, 11205]
5	Find the number of elements that contain values greater than 100 numbers = [3, 12, 47, 89, 156, 230, 412, 678, 999, 1023, 2056, 3210, 4789, 5123, 6780, 7895, 8120, 9321, 10456, 11789, 7, 21, 34, 56, 98, 23, 67, 45, 90, 19, 76, 88, 53, 66, 32, 11, 5, 27, 81, 94, 1345, 2789, 3567, 4892, 5230, 6741, 7896, 8023, 9124, 10256, 11234, 12478, 13569, 14789, 15923, 16789, 17892, 18956, 19345, 20478, 21678, 22890, 23999, 25412, 26789, 27890, 28901, 29999, 31234, 32456, 33567, 34890, 35999, 37234, 38956, 39876, 41230, 42345, 43567, 44890, 17, 29, 61, 83, 48, 91, 77, 24, 36, 58, 79, 64, 15, 55, 31, 42, 73, 87, 95, 28, 45999, 47890, 48921, 49567, 51234, 52890, 53999, 54812, 55999, 57890, 58921, 59345, 60234, 61789, 62345, 63567, 64890, 65789, 67892, 68956, 9, 33, 75, 18, 92, 46, 20, 63, 70, 85, 30, 50, 97, 80, 40, 68, 12, 22, 13, 14, 69567, 71234, 72890, 73999, 74812, 75999, 77890, 78921, 79345, 80234, 81789, 82345, 83567, 84890, 85789, 87892, 88956, 89567, 90234, 91789, 27, 49, 59, 16, 74, 93, 37, 86, 52, 60, 25, 35, 57, 44, 10, 69, 71, 43, 99, 39]
6	Create a function that takes an input n and returns a list containing a Fibonacci sequence of length 15, where $T_1 = n$ & $T_2 = n$.

	Input 1: 5
7	Find the range of values in the following list. (range = max - min) Input: <pre>list1 = [187, 992, 681, 828, 278, 186, 508, 418, 117, 738, 171, 882, 927, 665, 821, 975, 738, 906, 696, 746, 403, 223, 658, 371, 230, 447, 204, 624, 174, 923]</pre>