Practice Set: Functions (19 Problems)-v202

1. Function to print a message. Sample input	SL	Problem statement			Difficulty	
Sample input Sample output	1				levels *	
This is a function 2. Function to print an input character value. Sample argument	1.	runction to print a message.				
This is a function 2. Function to print an input character value. Sample argument		Sample input	S	ample output		
Sample argument Sample output						
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3. Write a function in C that takes a float x as the parameter and returns the value of 1/x². Sample argument	2.	Function to print an input charac	cter value.			*
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Sample argument 1.0 2.0 2.0 -3.5 0.081633 4. Write a function in C that takes two floats x and y as the parameters and returns the absolute value of their difference. You cannot use any library function. Sample Arguments Sample Return Value						
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Sample Argument 3 Hello Hello Hello		4.0 1.5		2.3		
Sample Argument 3 Hello Hello Hello						
Sample Argument Sample Output 3 Hello Hello Hello	5.	Write the function greet that prints the message "Hello" n times.				*
3 Hello Hello Hello						
Hello Hello			nent		<u>IT</u>	
Hello		3				
		1				
				I		

6.	Write the function greet that prints the desired output.					
	Sample Arguments		T	Sample Output	7	
	2 4			Hello 2	1	
				Hello 3		
				Hello 4		
	37			Hello 3	1	
				Hello 4		
				Hello 5		
				Hello 6		
				Hello 7		
7.				nt of a triangle as two flo a	t parameters	*
	and returns the area of	the triangle. [Form	ula: Are	a = 0.5*base*neight]		
	Samp	ole Arguments		Sample Return Value		
	2.0 5			5.0		
	4.25	4.0		8.5		
8.	Function to calculate the sum of three numbers.					*
	Sample arguments	Sample return v	value	Sample output		
	80 33 27	140		Sum in Main: 140	7	
	100 -100 0	0		Sum in Main: 0		
9.	Function to print and return the sum of n numbers coming from an array.				*	
	Sample arguments	Sample return valu	ne Sa	ample output in main		
	80 33 27	140		ım in Main: 140		
	3			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	100 -100	0	Sı	ım in Main: 0	7	
	2					
10.	Function to swap two r	numhers				*
10.	(Restriction: Pass by v					
	Commission of Co					
	Sample input Sample output Volve in funce 20 10					
	Value in func: 20 10 Value in main: 10 20					
	value III IIIaiii. 10 20					
	L					

11.	Function to determine only even numbers in an array of input integers.				
	C14		C144		
	Sample input 24 77 117 -512 1024	1	Sample output 24 -512 1024	_	
	45 33 0 256	+	0 256		
	43 33 0 230		0 230		
12.	Function that finds and returns the minimum value in an array.				**
	C1	D-4	0		
	Sample arguments 157 -28 -37 26 10	Return value	Output in main Minimum Value: -37		
	5	-37	Williminum Value37		
	12 45 1 10 5 3 22	1	Minimum Value: 1		
	7				
			·		
12	Francisco de de continuida de c				*
13.	Function that multiplies the array elements by 2.				
	Sample arguments Sample output in main				
	157 -28 -37 26 10		314 -56 -74 52 20		
	5				
	12 45 1 10 5	3 22	24 90 2 20 10 6	5 44	
	7				
14.	Function to sort and return a	n input array in asc	cending order.		**
	and the soft and retain an input array in ascending order.				
	Sample arguments	Sample of	output in main		
	10 22 -5 117 0	-5 0	10 22 117		
	5				

	1 ~ -		
Sample argument		Sample output in main	
1	0	Not prime	
2	1	Prime	
11	1	Prime	
39	0	Not prime	
101	1	Prime	
	ivisor) and LCM (least con	outs and uses two functions to find their Gommon multiple). Both functions take	CD **
San	malo imput	Sample output	
5 7	nple input	Sample output GCD: 1	
J		LCM: 35	
12 12		GCD: 12	
		LCM: 12	
12 32		GCD: 4	
		LCM: 96	
		prime numbers less than N , where N is an () to check whether a number is prime or n	
nput integer. Gener	ratePrime() uses IsPrime	prime numbers less than N , where N is an	
nput integer. Gener Sample input		prime numbers less than N , where N is an	
Sample input 5	Sample output Prime less than 5: 2, 3	prime numbers less than N , where N is an () to check whether a number is prime or n	
Sample input 5 10 1	Sample output Prime less than 5: 2, 3 Prime less than 10: 2, 3,	prime numbers less than N , where N is an () to check whether a number is prime or n	
Sample input 5 10 1 40 1 Function find_substrate is found anywhere	Sample output Prime less than 5: 2, 3 Prime less than 10: 2, 3, 2 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3	prime numbers less than N , where N is an () to check whether a number is prime or not be sometime of the check whether a number is prime or not be sometime. 5, 7 5, 7, 11, 13, 17, 19, 23, 29, 31, 37 herrays (a , b) as parameters, returns 1 if string the check whether a number is prime or not be sometime.	ot.
Sample input 5 10 1 40 1 Function find_subst	Sample output Prime less than 5: 2, 3 Prime less than 10: 2, 3, 2 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3	prime numbers less than N , where N is an () to check whether a number is prime or not be sometime of the check whether a number is prime or not be sometime. 5, 7 5, 7, 11, 13, 17, 19, 23, 29, 31, 37 herrays (a , b) as parameters, returns 1 if string the check whether a number is prime or not be sometime.	ot.
Sample input 5 10 1 40 1 Function find_substop is found anywhere Assuming, strlen(a) Sample input (a, b)	Sample output Prime less than 5: 2, 3 Prime less than 10: 2, 3, 2 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3	prime numbers less than N , where N is an () to check whether a number is prime or not be sometime of the check whether a number is prime or not be sometime. 5, 7 5, 7, 11, 13, 17, 19, 23, 29, 31, 37 herrays (a , b) as parameters, returns 1 if string the check whether a number is prime or not be sometime.	
Sample input 5 5 1 10 1 40 1 Function find_substoris found anywhere Assuming, strlen(a) Sample input (a, b) madam adam	Sample output Prime less than 5: 2, 3 Prime less than 10: 2, 3, 2 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3	prime numbers less than N , where N is an () to check whether a number is prime or not be seen to check which is prime or not check whether a number is prime or not be seen to check which is prime or not be seen to check which is prime or not be seen to check which is prime or not check which is prime or	ot.
Sample input 5 10 1 40 1 Function find_substop is found anywhere Assuming, strlen(a) Sample input (a, box madam adam telescope less	Sample output Prime less than 5: 2, 3 Prime less than 10: 2, 3, 2 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3	prime numbers less than N , where N is an () to check whether a number is prime or not be seen to check which is prime or not check whether a number is prime or not be seen to check which is prime or not be seen to check which is prime or not be seen to check which is prime or not check which is prime or	ot.
Sample input 5 5 1 10 1 40 1 Function find_substoris found anywhere Assuming, strlen(a) Sample input (a, b) madam adam	Sample output Prime less than 5: 2, 3 Prime less than 10: 2, 3, 2 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3	prime numbers less than N , where N is an () to check whether a number is prime or not be seen to check which is prime or not check whether a number is prime or not be seen to check which is prime or not be seen to check which is prime or not be seen to check which is prime or not check which is prime or	ot.
Sample input 5 10 1 40 1 Function find_substop is found anywhere Assuming, strlen(a) Sample input (a, box madam adam telescope less	Sample output Prime less than 5: 2, 3 Prime less than 10: 2, 3, 2 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3	prime numbers less than N , where N is an () to check whether a number is prime or not be seen to check which is prime or not check whether a number is prime or not be seen to check which is prime or not be seen to check which is prime or not be seen to check which is prime or not check which is prime or	ot.
Sample input 5 10 1 40 1 Function find_substop is found anywhere Assuming, strlen(a) Sample input (a, box and a dam telescope less 101010 101	Sample output Prime less than 5: 2, 3 Prime less than 10: 2, 3, 3 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3	prime numbers less than N , where N is an () to check whether a number is prime or not be seen to check which is prime or not check whether a number is prime or not be seen to check which is prime or not be seen to check which is prime or not be seen to check which is prime or not check which is prime or	ot.
Sample input 5 10 40 Function find_substrate is found anywhere Assuming, strlen(a) Sample input (a, box and a dam telescope less 101010 You will be given experienced.	Sample output Prime less than 5: 2, 3 Prime less than 10: 2, 3, 3 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3	prime numbers less than N , where N is an () to check whether a number is prime or not be seen to check which is prime or not check whether a number is prime or not be seen to check which is prime or not be seen to check which is prime or not check	ot.
Sample input 5 10 40 Function find_substrate is found anywhere Assuming, strlen(a) Sample input (a, box and a dam telescope less 101010 You will be given experienced.	Sample output Prime less than 5: 2, 3 Prime less than 10: 2, 3, 3 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3 Prime less than 17: 2, 3, 3 Prime less than 18: 2, 3, 3 Prime less than 19:	prime numbers less than N , where N is an () to check whether a number is prime or not be seen to check which is prime or not check whether a number is prime or not be seen to check which is prime or not be seen to check which is prime or not check	ot.

isPrime

parameter: an integer.

returns: 1 if the received integer is prime, 0 otherwise

nextPrime

parameter: an integer.

returns: the smallest prime that is greater than the received integer.

calls isPrime

main

reads 5 integers with scanf

calls nextPrime

Sample input	Sample output
1	2
2	3
3	5
8	11
21	23