Chapter-2

programming Exercise of hour of monogramming exercise of hour of monogramming exercise

decimal form and print the [2:1] Write a program to determine and print the sum of the following harrmonic series for the given value of n: int moun ()

 $1 + \frac{1}{2} + \frac{1}{3} + \cdots + \frac{1}{n}$ The value of n should be given intercactively through the terrminal (" Enter the prince in decimals " I thing

Answerz:

Scanf ("Rf", &T); #include (stdio.h) paine = T * 100: int main () int i, n; float to Sum = 0; printf ("Enter the value of n: (n"); Scanf ("2d", &n); for (i=1; i(=n; i++) { t = 1/(float); } Sum = Sum + t printf ("% 0.3f", sum); return 0;

[2.2] write a program to road the price of an item in decimal form and print the output in paige. Answer: of the tellowing harmonic #include (stalo.h) int main () 1+ 1 + 1 + 1 + 1 + 1 + 1 m Hoat T; int paise; when moving and bloods or to surer out print f ("Enter the price in decimal"); la minument and Answork: Scanf ("2f", &T); #molude (Statio.h) paise = T* 100; int main (1) prints (" The price in paise: > d", paise); returno; Float to Sum = 01 print ["Enten the value of no (n"); sant ("3d" & 17)3 Output: for (l=1) [(=n; l+f) 41.28 4828 1 t = 1/13(00); 3 Sum = Sum + t PRINTS ("2037", Sum) rections 03

write a program that prints the even numbers from 1 to 100. the first minnion by the second Amwer : # include (stdio. Wor all Alles probe its wor all int main () Amwert : for (num = 0; num < 100; num ++) () nism +m. Hoat num 1, num 2, num 3; { if ((num +1) 22 = =0) and out noted') traing printf (" 2d \t", num +1); Scort ("Fof 25; & Roum 1, & num 2) return 0; print [", 37£ 37£ 37 fighter 3, num 2,

Output:

2,4,6,8,10,12,19,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,64,66,68,270,72,74,76,78,80,82,84,86,88,90,92,94,96,98,100

actuan O:

[2.4] write a progream that requests two float type numbers from the users and then divides the first number by the second and display the results along with the number.

Answer :

#include (stdio.h)

float num 1, num 2, num 3;

prints ("Enten the value of num 1 and num 2 (");

O HINDEN

Scanf ("2f 2f", & num 1, & num 2);

num 3 = num 1 /num 2;

printf (".37f.37f.37fnum 1, num 2, num 3).

neturn o; 2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32

42,44,46,48,50,52,54, 56, 58, 60, 62, 64, 66, 68 tugting 72,7 2.4+2.4=4.8

75 The price of one kg of rice is Rs 16.75 and one kg of Sugar is 15. Write a praggram to get these values from the users and display the prices.

Answer :

include (stdio.h) mirrors and blunds int main() {
int r.S; Hoat nice, Sugar; : Machine rice = 16.75; Molude 28td10.M Sugar = 15.00; printf ("Enten value of rice and Sugar (n"); sconf ("242d4, LR, &5); printf ("** List of ITEAMS *** (n"); printf (Item (total price \n"); printf ("Rice (+ R& 7.2f \n', rice *T); prints ("Sugar It Rs 2.2fin", Sugar * S); refurin 0;

Output: Enten Value of rice and Sugar

*** List OF ITEMS ***

Item total - price

Rice Rs 33.50

Sugar Rs 30.00

[2.6] Write a groguam to count and print the numbers of negative and positive numbers in a given set of numbers. Test your program with a suitable set of numbers. Use scanf to read the numbers.

Reading should be terminated when the value is 0.

Answer: #include (Stdio.h)

int main ()

int n, pos = 0, neg = 0;
input:

prints ("Enten your number one by one to end your.

set press 0 \n");

Scanf ("2d", &n);

it (n>0) {

pos ++;

it (n(0){

neg + + ;

output: brien violus of rice and

17F.01= 1917

Sugar = 15.00;

METERIA 03

pribate (" enter value at nice and

Sconf ("7872d", LR, 259;

*** List OF ITEMS ***

prints (" sugar It Ro 2.25/11")

Them total - price

point of Complet printing corong mina character of the fager I fall that the words is could to the to the yeatime C! output: print f (" there are red positive and red negative number in', po, neg return 0; Sam = 30343. nondram to do the following: the management [2.7] Write a program a) Declare X and y as as integer Variables and Z as short integer vaniable. Sumbers to x and y. C) Assign the sum of x and y to Z. d) output the values of x, y and Z comment on the output. Findude <5+010.11> # include (stdio.h) int main () Void main () int sum; int X=1234567, Y=234567; stoot xixis Short int; Second ("2 + 2 + ", &x, & 2) $Z = \chi + \gamma$ Sum = X+ / i

Print f ("X= 2 f /n /= 2 f /n 5 sum = 2 d /n" x x x sum);

onnitro

printf ("x= 2 d |n Jum = 2d(n", x,y,Z); (0==1) +1 print f ("Compiler printing wrong value because short integer data type range is only -128 to 127 \n") return o; print f (" Hure are 2d positive and 2d regative mumber in so, may); output: X = 123456 return 0: Y= 234567 Sum = 30343 compiler printing wrong value because short integer from data type Ronge is only -128 to 127. The sold is type Ronge is only -128 to 127. [2.8] write a program to read two floating point numbers usering seant statement, arrigh their sum to an integer variable and then output the values of all three variables. could soft fugture (b comment on the output. Answer: #finclude (Station) # include < stdio.h) int main () Upid main () int Sum; int X=1234201. A= 534203 float x,y; Searf ("%f%f", &x, &y); Short int; Sum = X+Y; printf ("X= %f \n Y= %f \n Sum = %d \n", x, y, sum);

return 0;

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output:

x = 2.4

x = 2.4

of in standard of stan
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[2.9] write a program to illustrate the use of typedef declaration in a program.

#include (stdio.h)

int main()

int n;

type deaf int.taka;

taka gumon = 10, gramu = 20, total;

total = Sumon + Shamu;

print f (" total tk; % d \n", total);

return 0;

output:

total th: 30

[2:10] write a program to illustrate the use of symbolic constants in noal-like application. Sum = a

#include (stdio.h)

desine PI 3.14159

int main ()

float A,R)

printf ("Enter readius of your . wheel (n");

Scanf (" 2 f ", & R);

A = 2* PI *R;

prints (" perimeter of wheel "of In", A);

declaration. in a pagain

+ f (" total · tk; 2d (my tetal);

teturn 0:

cutput:

total +4x: 30