

**Homework Assignment #2**

**Group#: 5**

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**Homework Assignment**

1. Write a simple program to convert a student weight from kilograms to pounds. Declare two variables Kg and Pound. Initialize the variable Kg with a value 70 and output the converted weight in Pounds by using formula Pound = Kg \* 2.2

#include <stdio.h>

/\*This program converts student weight from kilograms to pounds\*/

int main(void)

{

int Kg=70,Pound;

Pound=Kg\*2.2;

printf("Student weight in Pounds: %d",Pound);

return 0;

}

1. Find the area of a rectangle. Declare and initialize two variables length and width such that length = 20 and width = 30. Output the area of rectangle using formula area = length \* width.

#include <stdio.h>

/\*This program calculates area of rectangle\*/

int main(void)

{

int length=20,width=30,area;

area=length\*width;

printf("Area of rectangle: %d",area);

return 0;

}

1. Write a program that asks the user to type 2 integers A and B and exchange the value of A and B.

[Hint: be sure to use integer values throughout, not floating point numbers. Moreover, you should create a third temporary variable to complete the exchange.]

#include<stdio.h>

int main()

{

int a,b;

int c,d;

printf("Enter two values for a and b \n");

scanf("%d\n%d",&a,&b);

printf("The Two Values before exchange: a=%d b=%d\n",a,b);

c=b;

d=a;

printf("The Two Values after exchange: a=%d b=%d",c,d);

return 0;

}

1. Write a program that will calculate and print the salary of a worker for a particular month. The salary of a worker depends on his basic salary plus the overtime. The formula to be used is:

total\_salary = basic\_salary + (hours\_overtime \* rate\_per\_hour

where basic\_salary is a fix salary received by an employee every month, hours\_overtime is the number of extra hours the employee has worked for that particular month, and the rate\_per\_hour refers to the rate the employee is entitled to for his overtime.

#include <stdio.h>

int main(void)

/\*T: total\_salary,B:basic\_salary,H:hours\_overtime,R:rate\_per\_hour\*/

{

int T,B,H,R;

printf("Enter basic salary: ");

scanf("%d",&B);

printf("Enter hours overtime: ");

scanf("%d",&H);

printf("Enter rate per hour: ");

scanf("%d",&R);

T=B+(H\*R);

printf("Worker total salary for this month: %d",T);

return 0;

}

1. Input the monthly income of a person. Calculate his monthly saving after giving share to each of his family member as follows,

* Son gets 10 %
* Daughter gets 5 %
* Wife gets 12 %
* Monthly expenditure 20 %

#include <stdio.h>

int main(void)

/\*mi:monthly\_income, ms:monthly\_saving, me:monthly expenditure\*/

{

float mi,ms,son,daughter,wife,me;

printf("Enter monthly income: ");

scanf("%f",&mi);

son=0.1\*mi;

daughter=0.05\*mi;

wife=0.12\*mi;

me=0.2\*mi;

ms=mi-(son+daughter+wife+me);

printf("monthly saving: %.1f\n",ms);

printf("son share: %.1f\n",son);

printf("daughter share: %.1f\n",daughter);

printf("wife share: %.1f\n",wife);

printf("monthly expenditure: %.1f\n",me);

return 0;

}