**Homework Examples**

1. Computes the volume of a 12" x 10" x 8" box

#include <stdio.h>

#include <conio.h>

int main(void)

{

int height, length, width, volume;

height = 8;

length = 12;

width = 10;

volume = height \* length \* width;

printf("Dimensions: %dx%dx%d\n", length, width, height);

printf("Volume (cubic inches): %d\n", volume);

getch();

return 0;

}

1. Compute the volume of a box with input provided by the user

#include <stdio.h>

#include <conio.h>

int main(void)

{

int height, length, width, volume;

printf("Enter height of box: ");

scanf("%d", &height);

printf("Enter length of box: ");

scanf("%d", &length);

printf("Enter width of box: ");

scanf("%d", &width);

volume = height \* length \* width;

printf("Volume (cubic inches): %d\n", volume);

getch();

return 0;

}

1. Converts a Fahrenheit temperature to Celsius

#include <stdio.h>

#include <conio.h>

int main(void)

{

float fahrenheit, celsius;

printf("Enter Fahrenheit temperature: ");

scanf("%f", &fahrenheit);

celsius = (fahrenheit - 32) \* 5.0/9.0;

printf("Celsius equivalent: %.1f\n", celsius);

getch();

return 0;

}

**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
2. 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.
3. 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.]

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.

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 %