

**Homework Assignment #4**

**Group#: 5**

**Group members: ID**

1.Abdulaziz alnaim 211513441

2.Ibrahim alnaim 213117707

3.Abdulrahman alabdullatif 213133478

4.Musab alfuraydan 213115543

5.Abdulelah alarfaj 213116837

**Homework Assignment**

1.The unit for electricity usage is kWh. For domestic usage, the monthly rate is 21.8 cents/unit for the first 200 unit, 25.8 cents/unit for the next 800 units and 27.8 cents/unit for each additional unit. Given the amount of electricity units (in kWh) used by a customer, write a program that will calculate and print the amount of money needs to be paid by the customer.

#include<stdio.h>

int main()

{

int usage,payment;

printf("Enter amount of electricity units (in kWh)\n");

scanf("%d",&usage);

if (usage>200) {

payment=200\*21.8;

usage=usage-200; }

else if (usage>800) {

payment=payment+(800\*25.8);

usage=usage-800;

payment=payment+(usage\*27.8); }

else if (usage<=800)

payment=payment+(usage\*25.8);

else

payment=usage\*21.8;

printf("The total payment is %d",payment);

}

2. Write a program that inputs two numbers and an arithmetic operator (\*, /, +, –) from user. It performs arithmetic operation if operator is a valid arithmetic operator. Display the results of arithmetic operations for addition, subtraction, multiplication, division and remainder operators. Hint: use switch and case structure to perform the relevant operation.

#include<stdio.h>

int main()

{

int A,B;

char op;

printf("Choose an arithmetic operator (\*,/,+,-,%)\n");

scanf("%c",&op);

printf("Enter Two numbers\n");

scanf("%d%d",&A,&B);

switch(op)

{

case '\*':

printf("The result of multiplication is %d",A\*B); break;

case '/':

printf("The result of division is %d",A/B); break;

case '+':

printf("The result of addition is %d",A+B); break;

case '-':

printf("The result of subtraction is %d",A-B); break;

case '%':

printf("The result of remainder is %d",A%B); break;

default:

printf("Error Invalid input");

}

return 0;

}

3. Write a program to input student’s scores for five subjects, calculate the average score and find the relevant grade based on average score. The grade is assigned as per following scheme.

A – 91-100

B – 81-90

C – 71-80

D – 61-70

F – 0-60

#include<stdio.h>

int main()

{

int a,b,c,d,e,av; /\* av: average \*/

printf("Enter student score in Physics: ");

scanf("%d",&a);

printf("Enter student score in Chemistry: ");

scanf("%d",&b);

printf("Enter student score in Biology: ");

scanf("%d",&c);

printf("Enter student score in Math: ");

scanf("%d",&d);

printf("Enter student score in English: ");

scanf("%d",&e);

av=(a+b+c+d+e)/5;

if (av>90&&av<=100)

printf("Grade=A");

else if (av>80&&av<=90)

printf("Grade=B");

else if (av>70&&av<=80)

printf("Grade=C");

else if (av>60&&av<=70)

printf("Grade=D");

else

printf("Grade=F");

return 0;

}