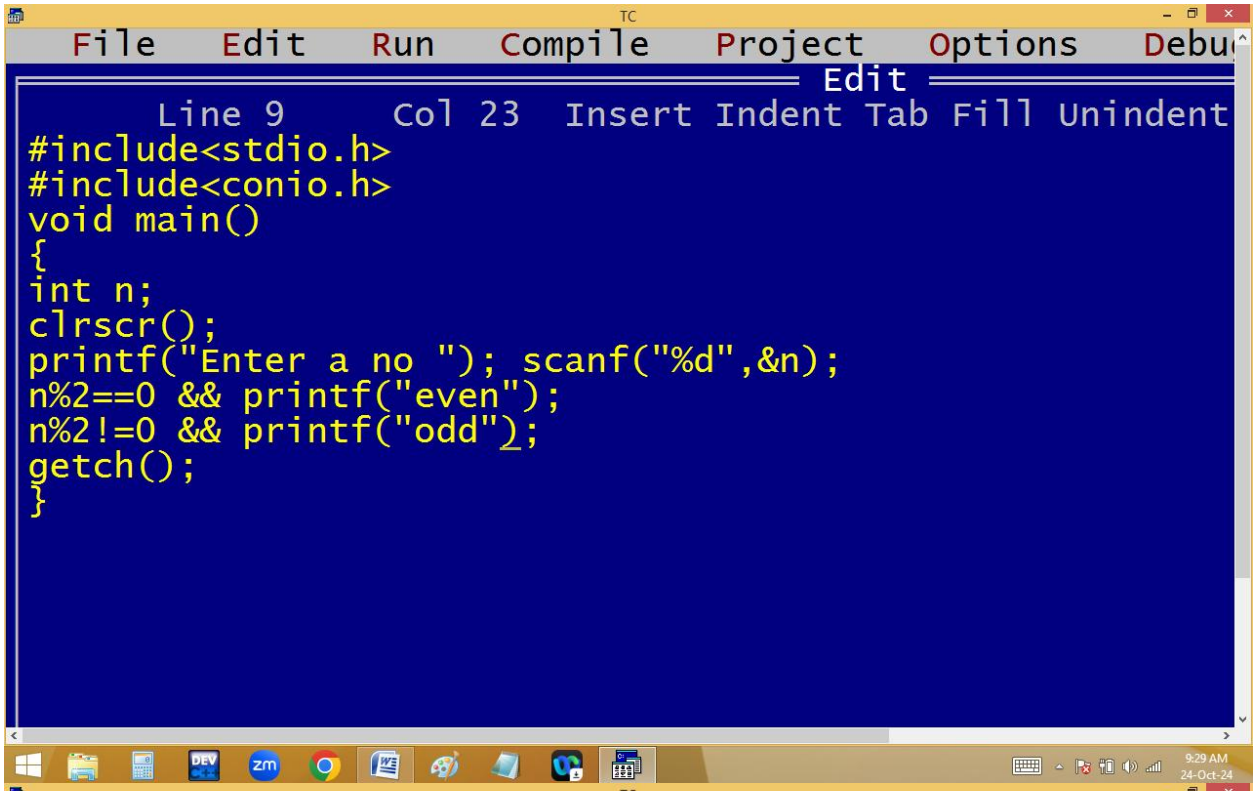
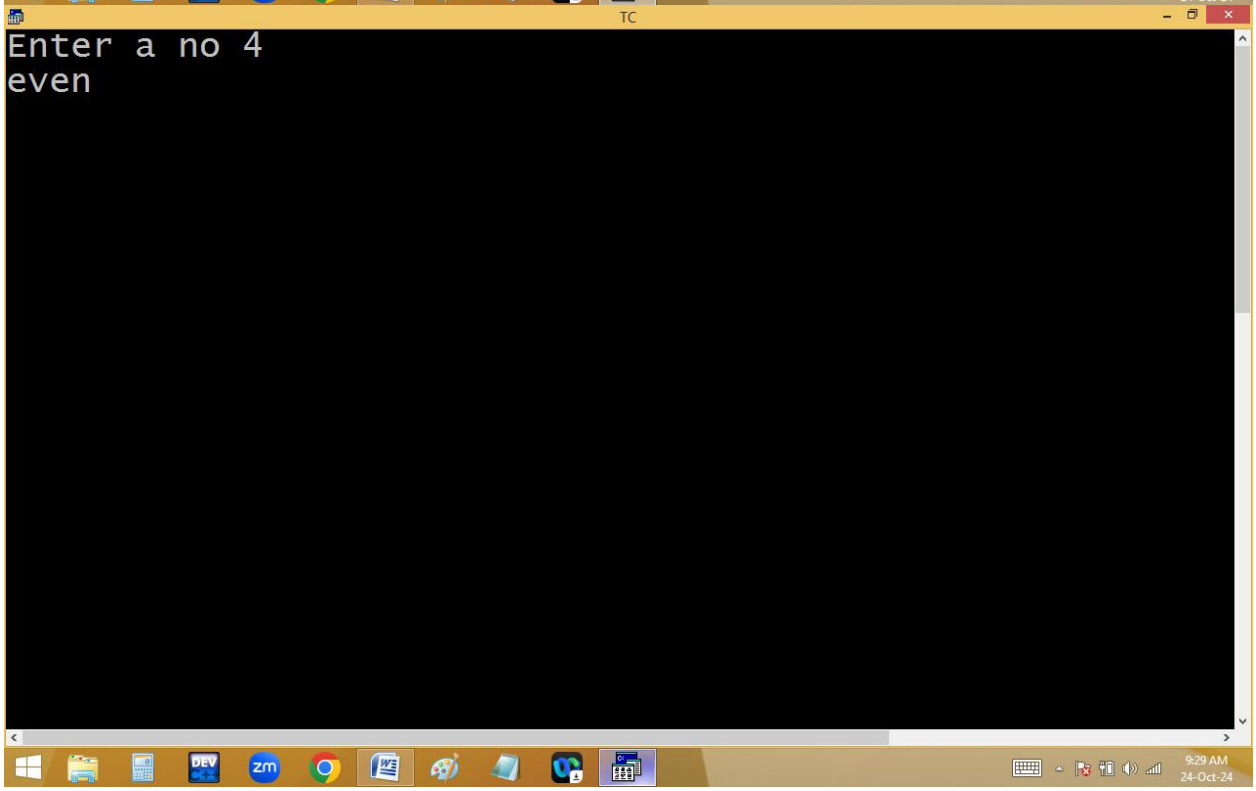
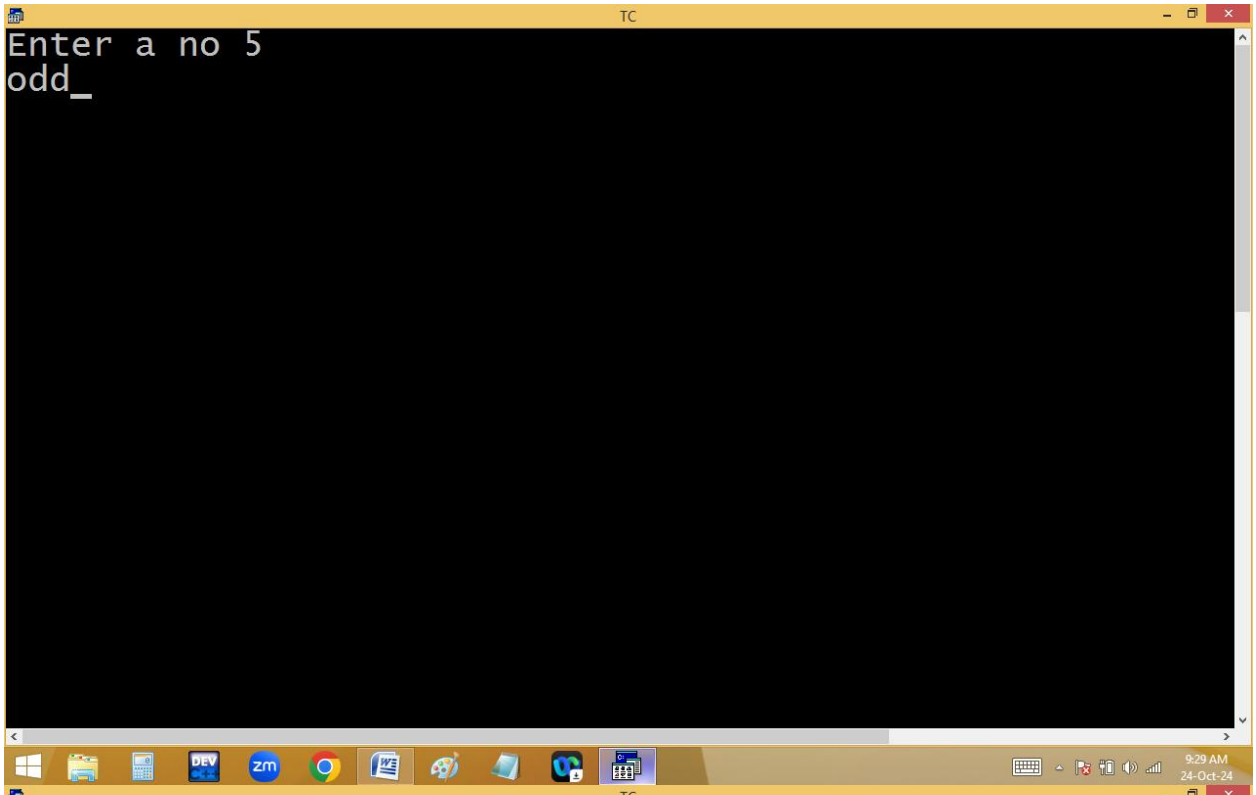
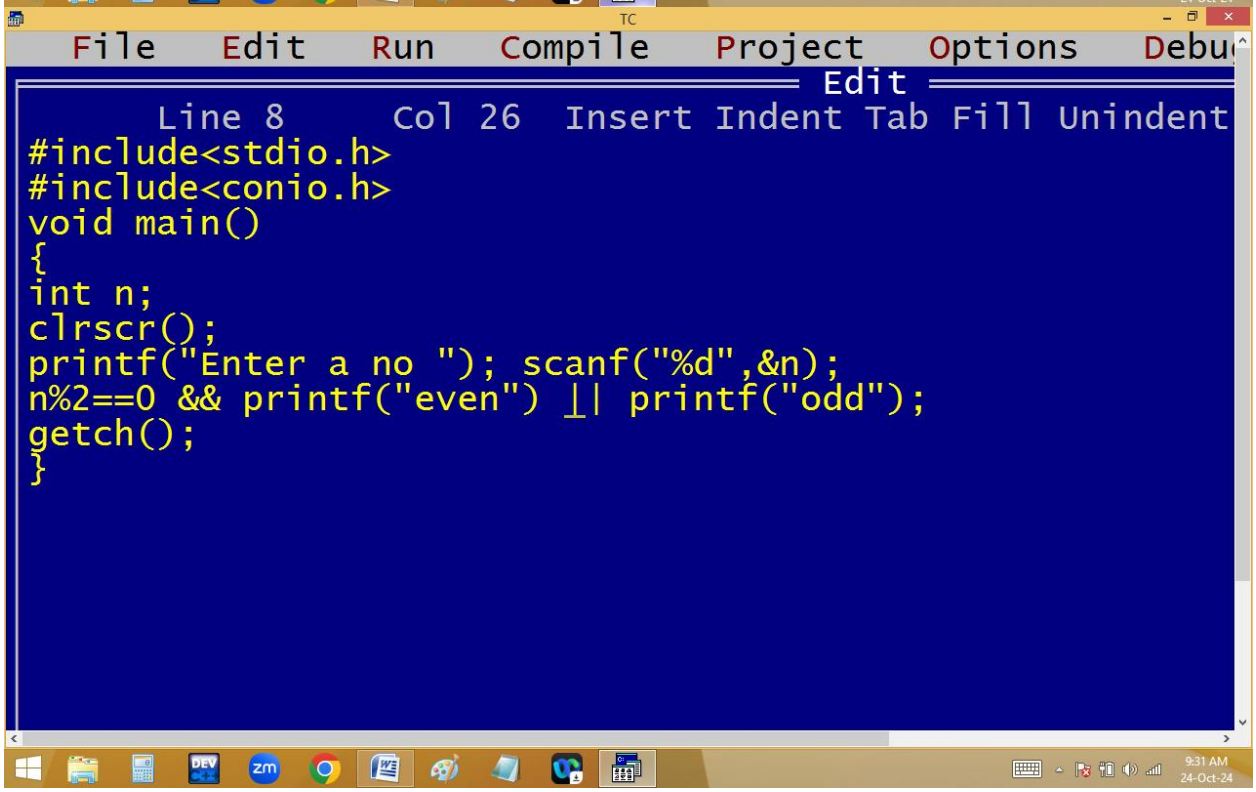
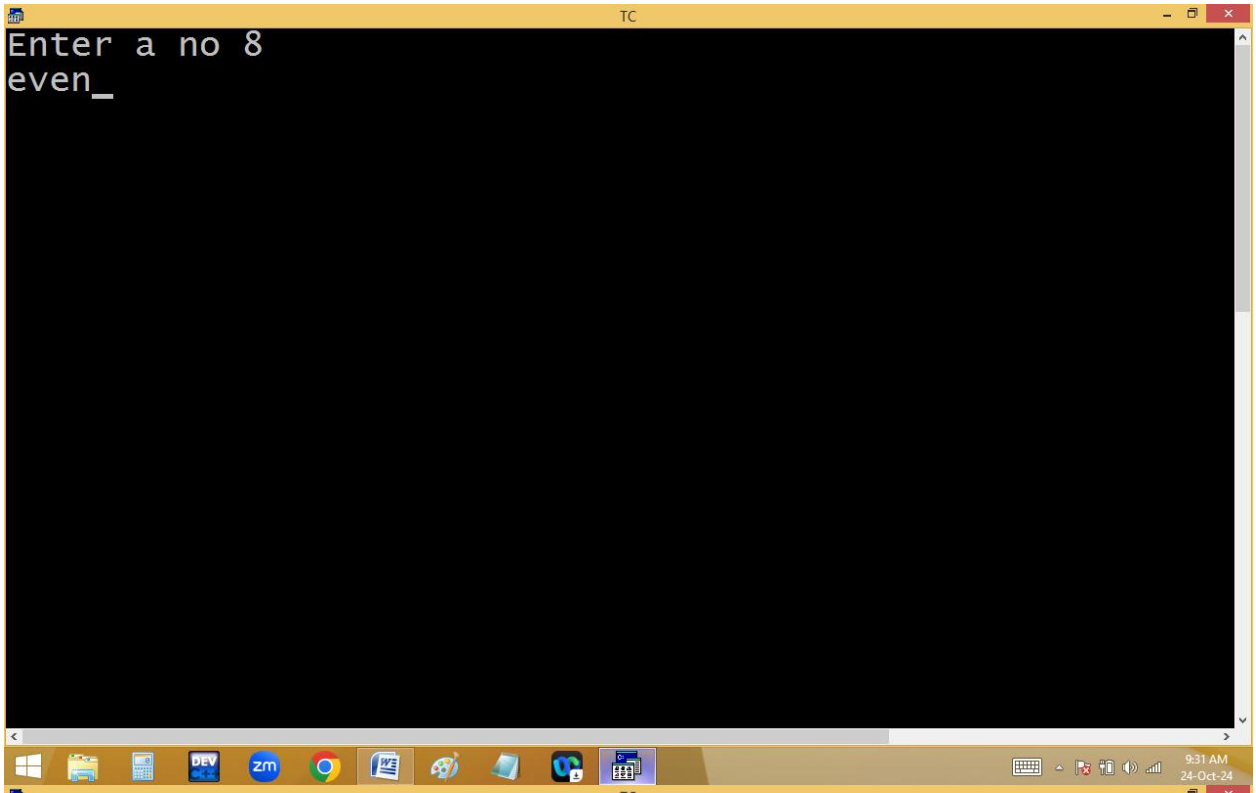
Finding even/odd without using if..else / ternary operator:

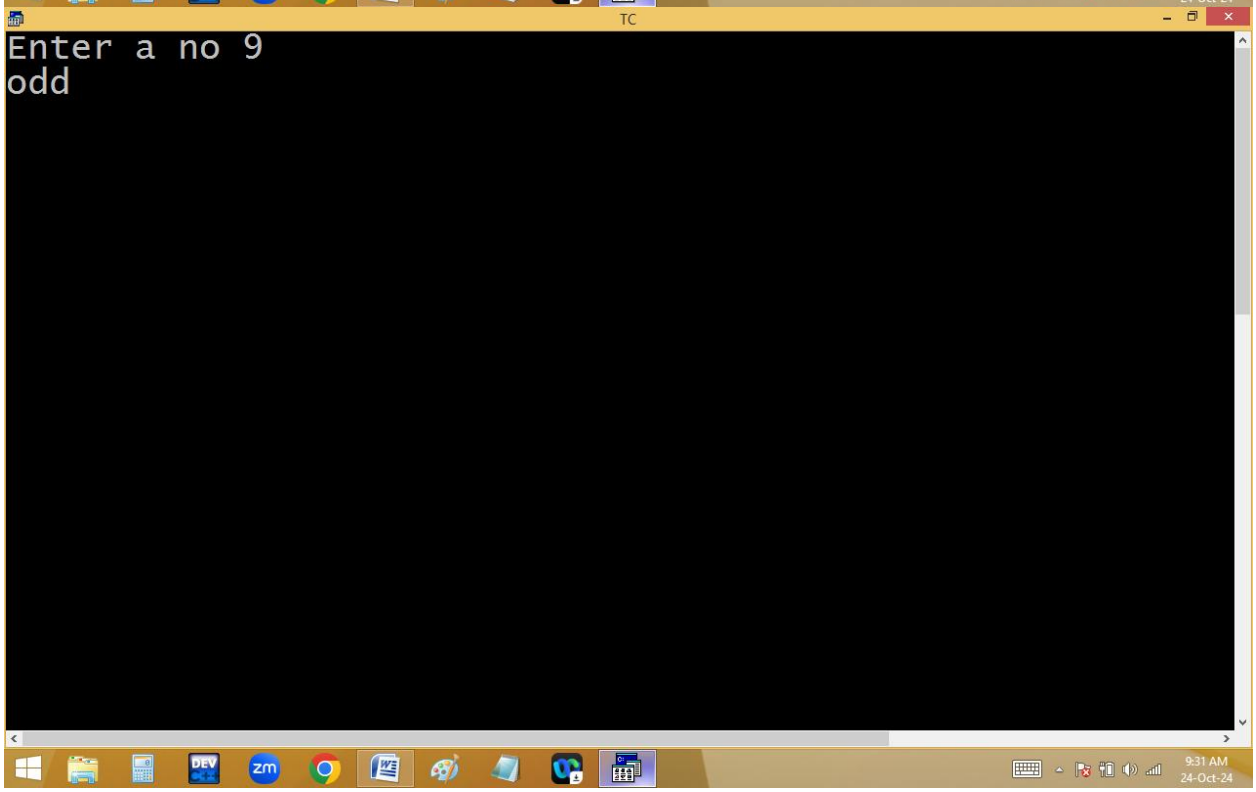




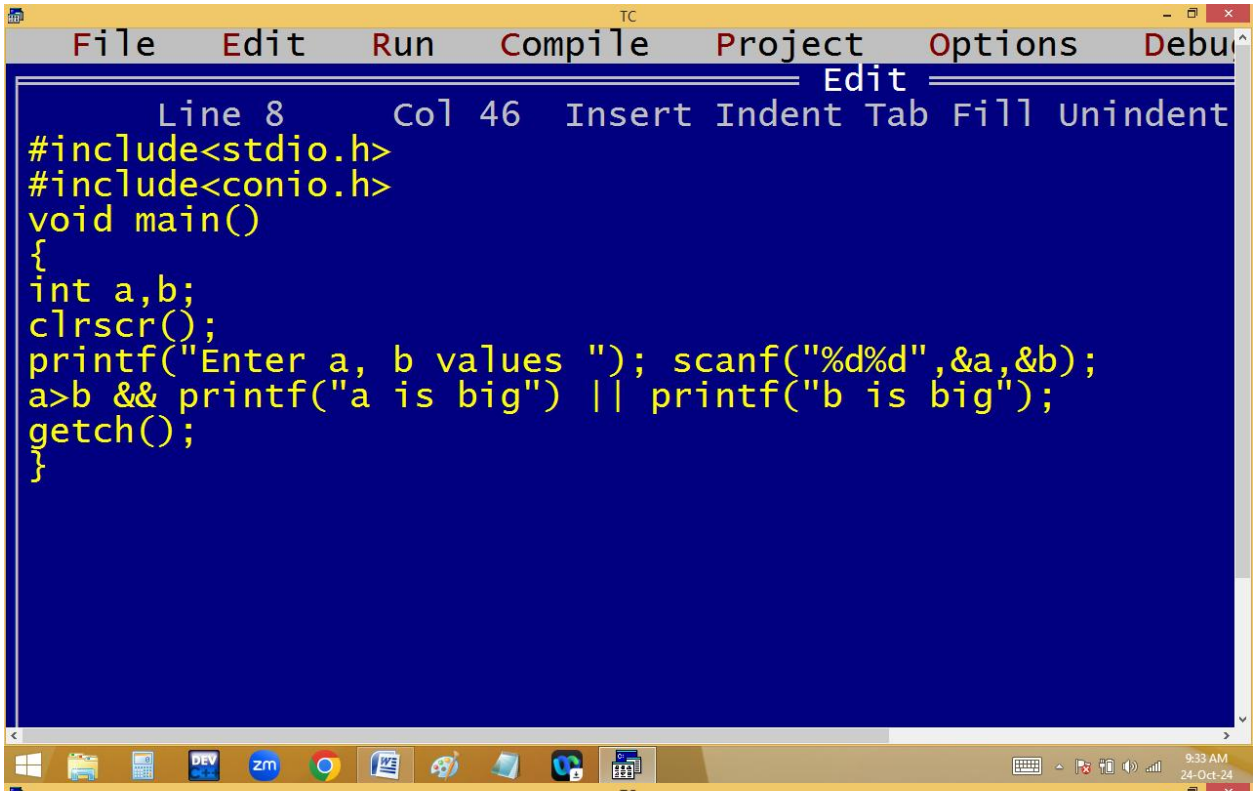

TC
Enter a no 5
odd

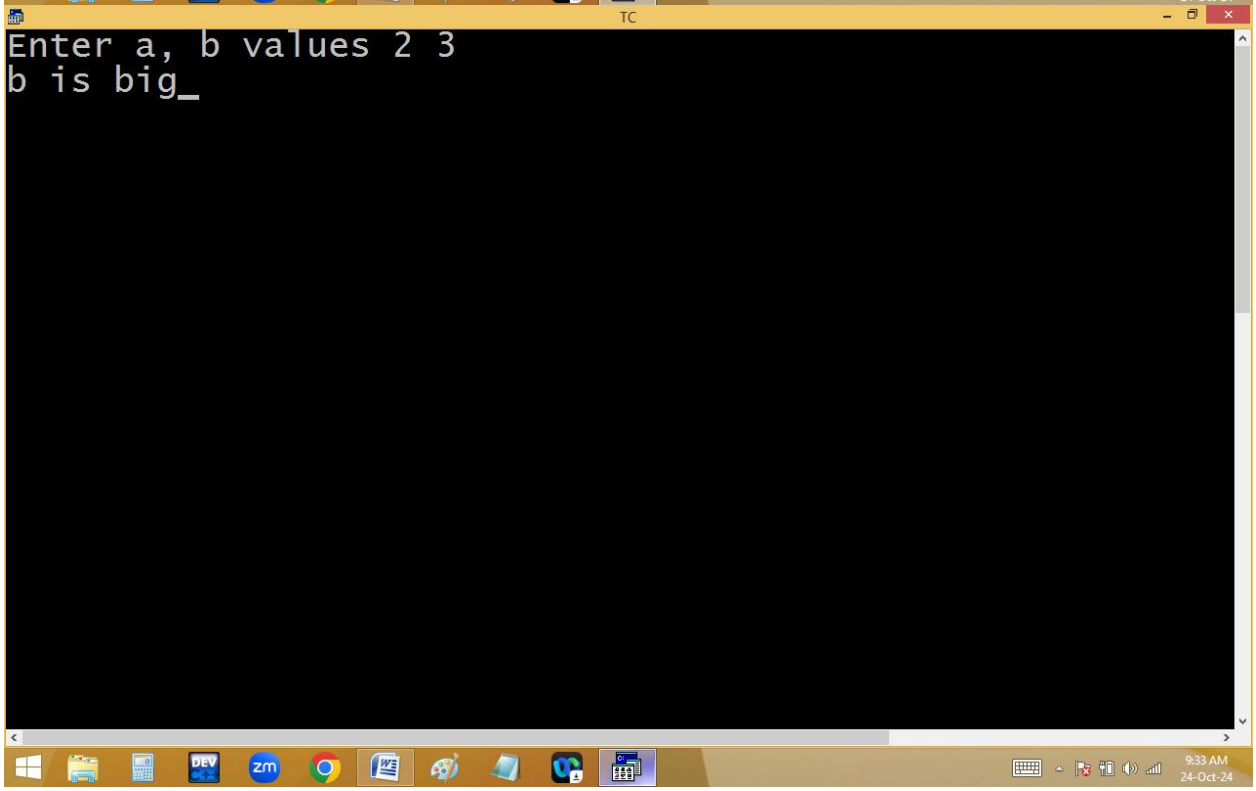

TC
File Edit Run Compile Project Options Debu
Edit
Line 8 Col 26 Insert Indent Tab Fill Unindent
#include<stdio.h>
#include<conio.h>
void main()
{
int n;
clrscr();
printf("Enter a no "); scanf("%d",&n);
n%2==0 && printf("even") || printf("odd");
getch();
}

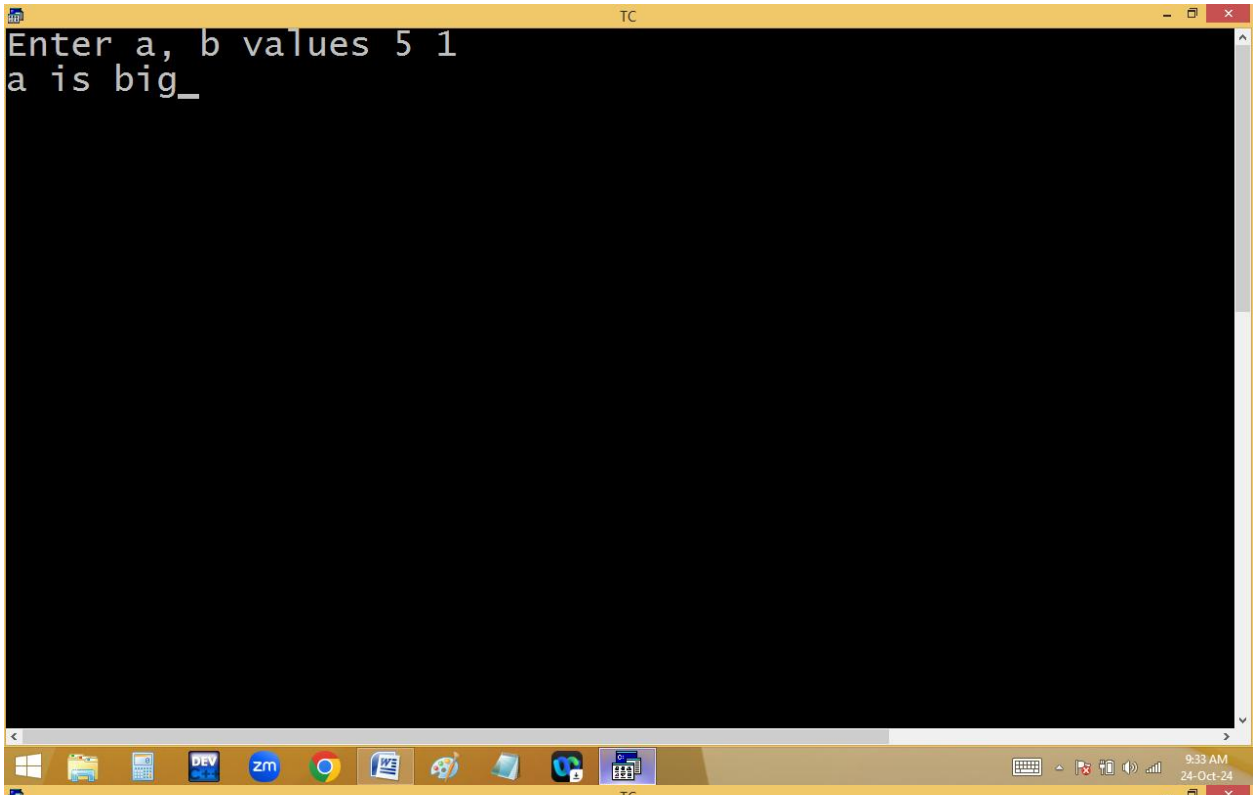

TC
Enter a no 8
even_

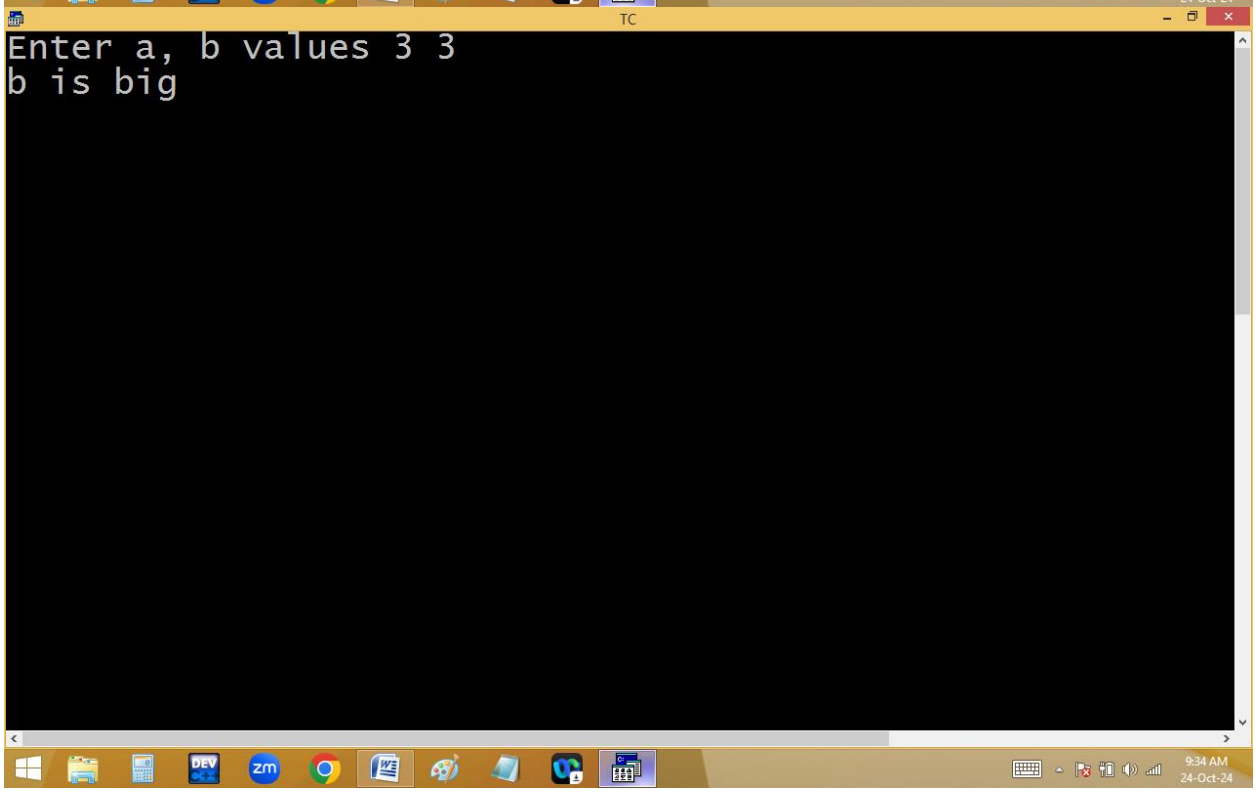

TC
Enter a no 9
odd

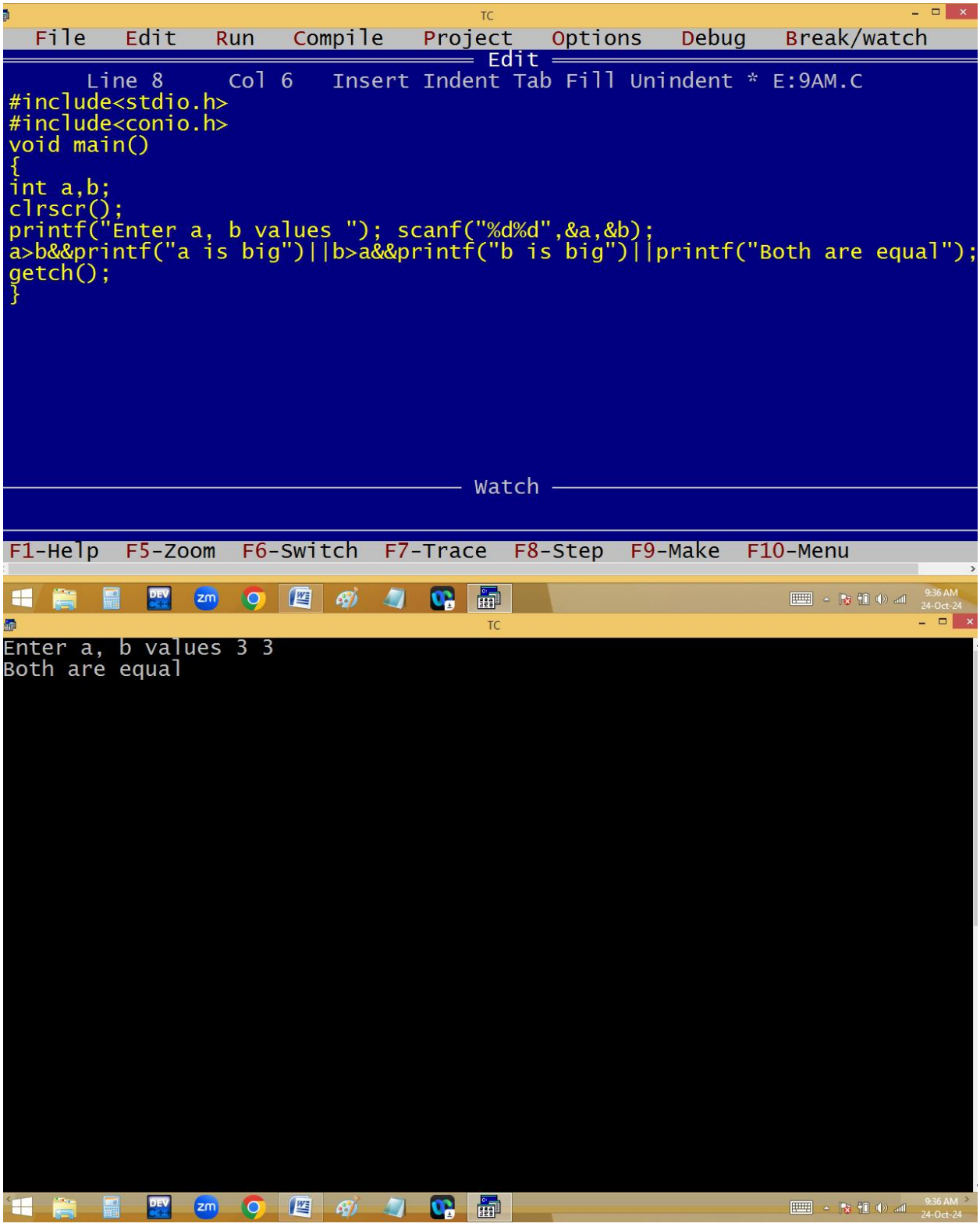
Finding max in 2 no’s without using if..else / ternary op:






TC
Enter a, b values 5 1
a is big_
9:33 AM
24-Oct-24


TC
Enter a, b values 3 3
b is big
9:34 AM
24-Oct-24

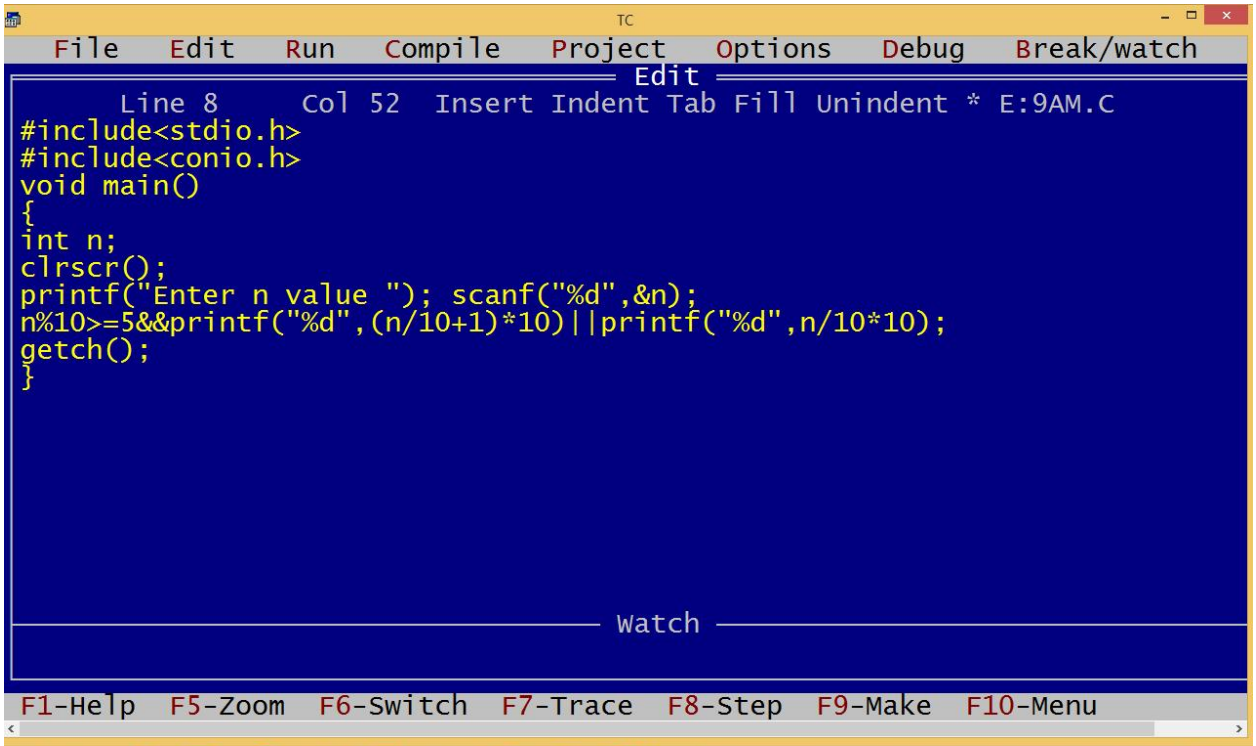

TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 8 Col 6 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a, b values "); scanf("%d%d",&a,&b);
a>b&&printf("a is big")||b>a&&printf("b is big")||printf("Both are equal");
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu
TC
Enter a, b values 3 3
Both are equal

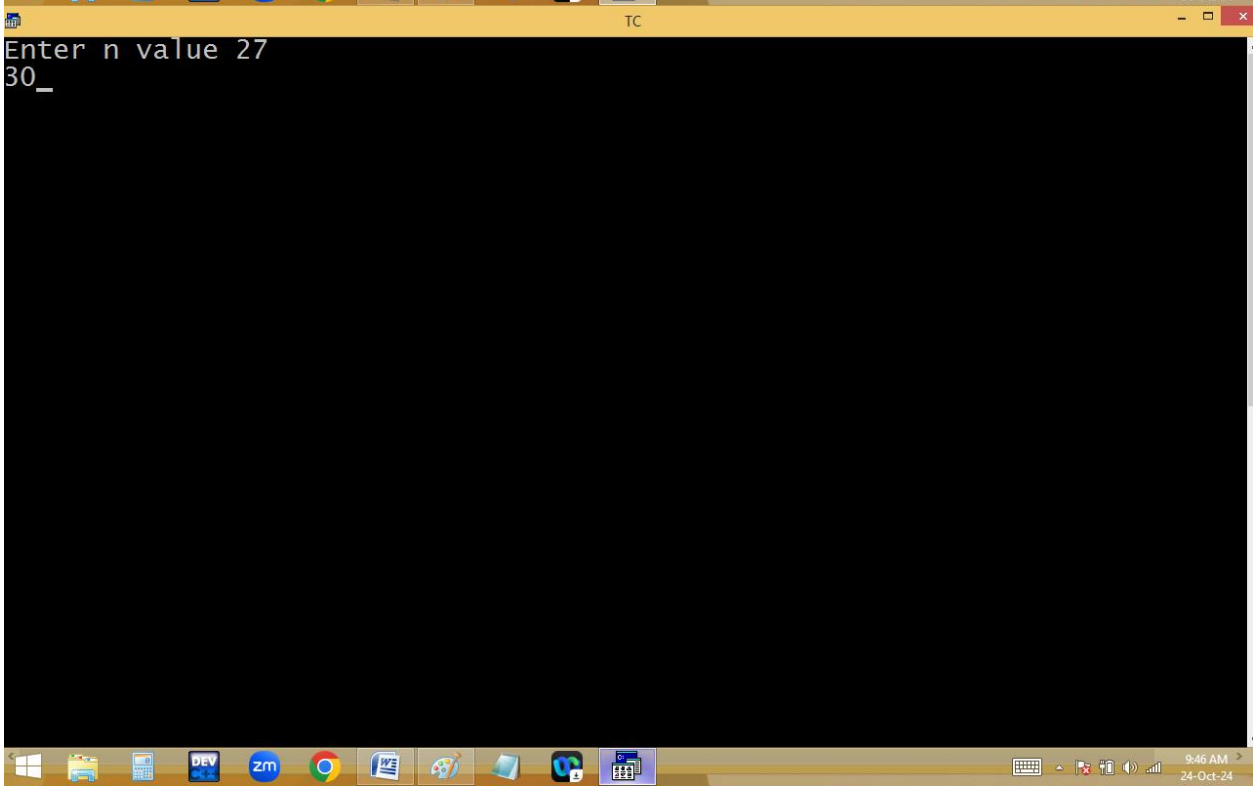
Rounding of no:

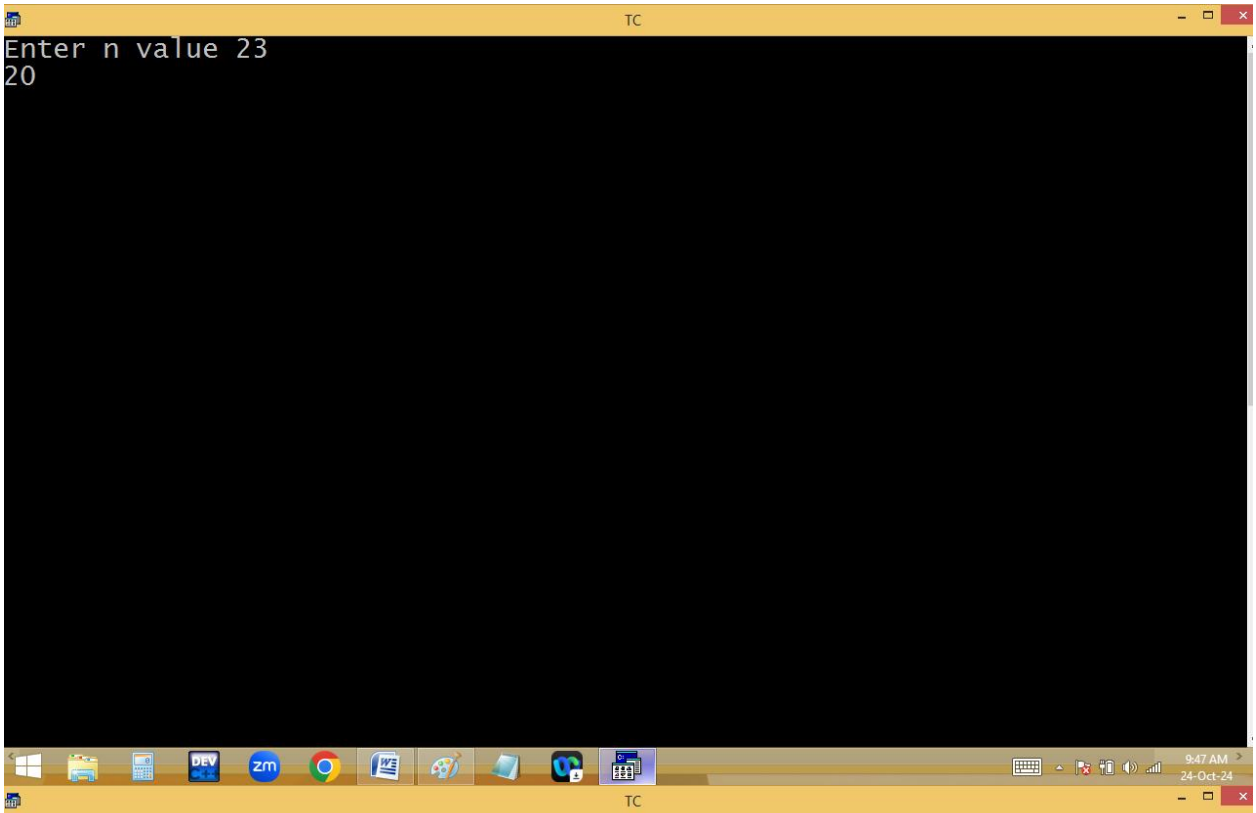
Read a no and if the last digit is >=5 go for next multiple of previous no, otherwise go for previous multiple.

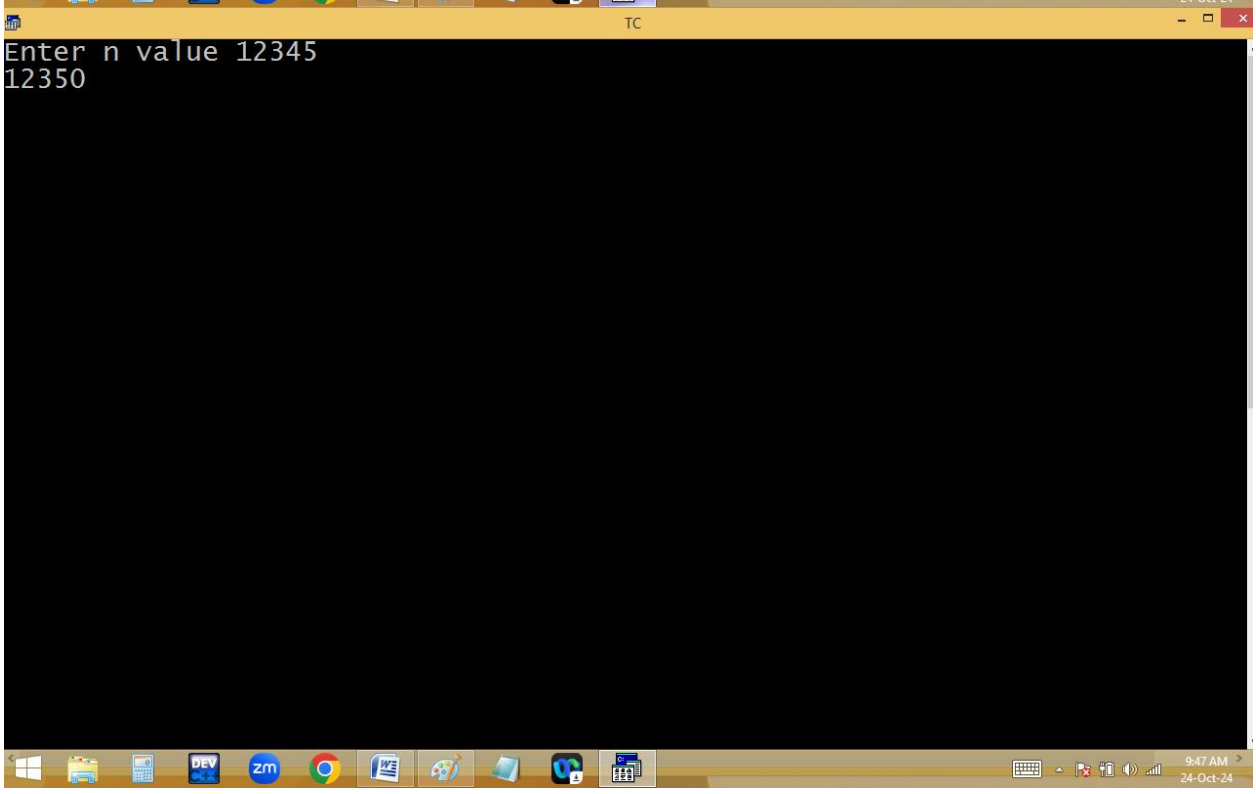
Eg: 27 last digit is 7, above 5 then ➔ 2+1=3*10=30

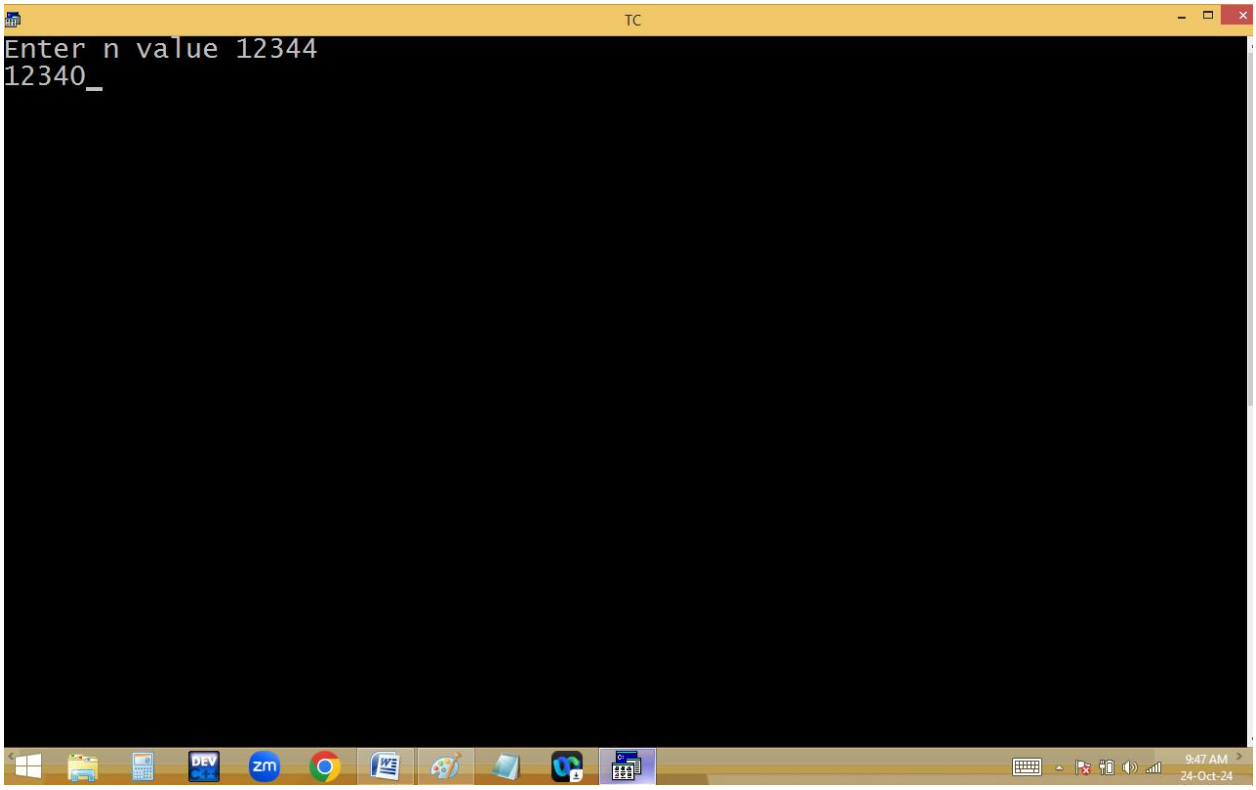
23 last digit is 3, below 5 then ➔ 2*10=20


TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 8 Col 52 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n;
clrscr();
printf("Enter n value "); scanf("%d",&n);
n%10>=5&&printf("%d",(n/10+1)*10)||printf("%d",n/10*10);
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu


TC
Enter n value 27
30_


TC
Enter n value 23
20
9:47 AM
24-Oct-24


TC
Enter n value 12345
12350
9:47 AM
24-Oct-24

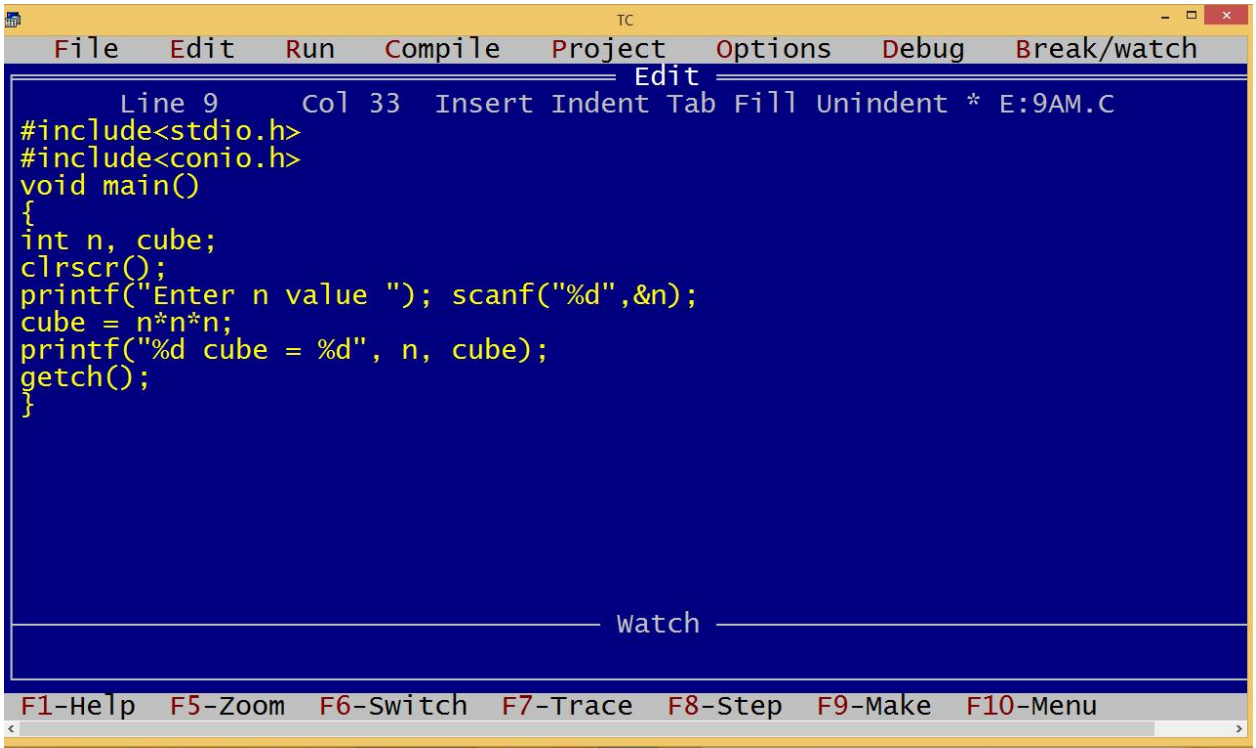


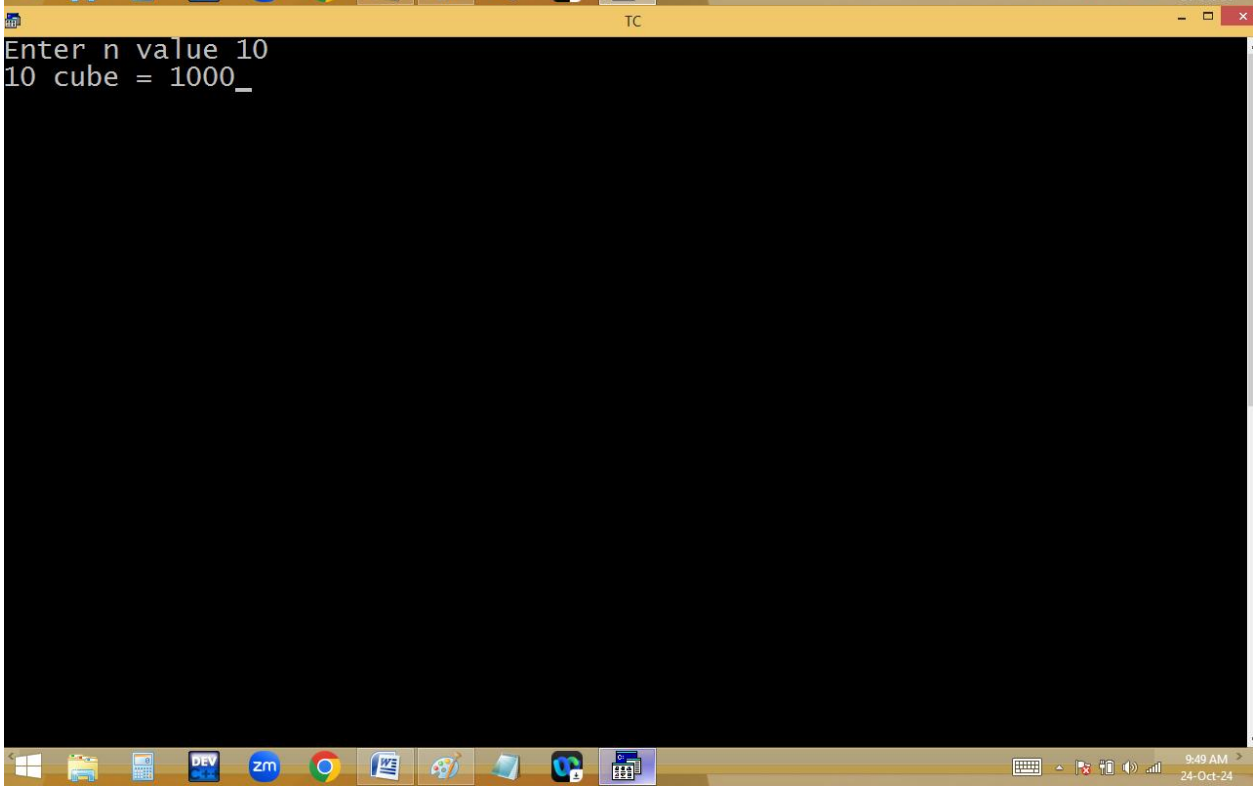
23 % 10 = 3 >=5

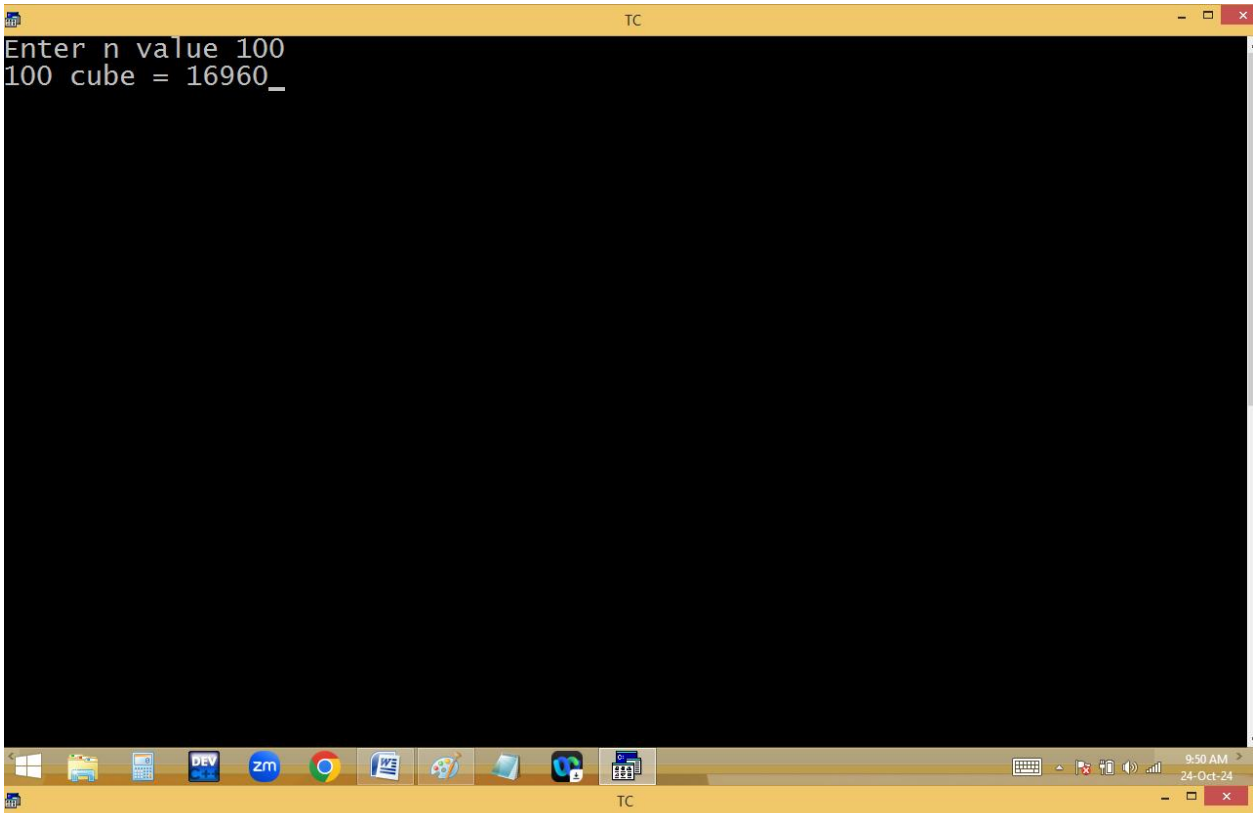
23/10=2*10=20

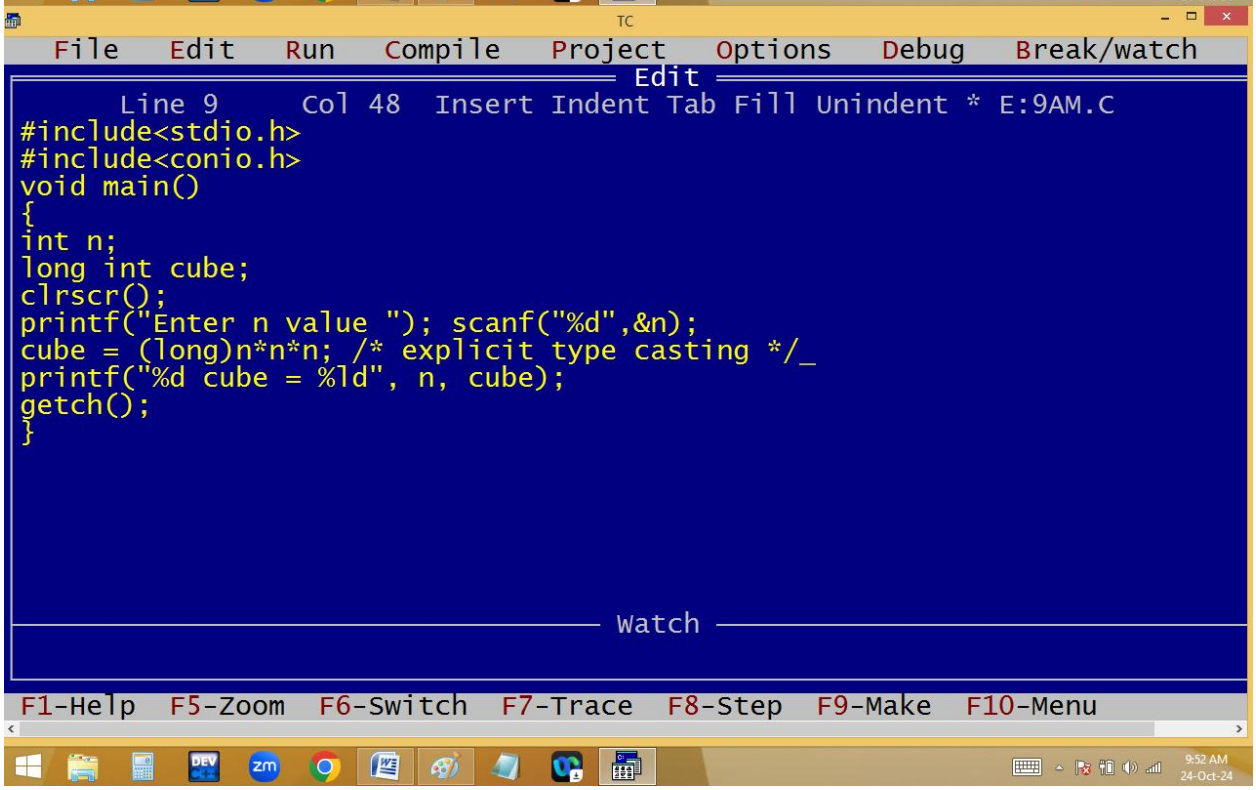
27 % 10 = 7 >= 5 && 27/10=2+1=3*10=30 || 27/10=2*10=20

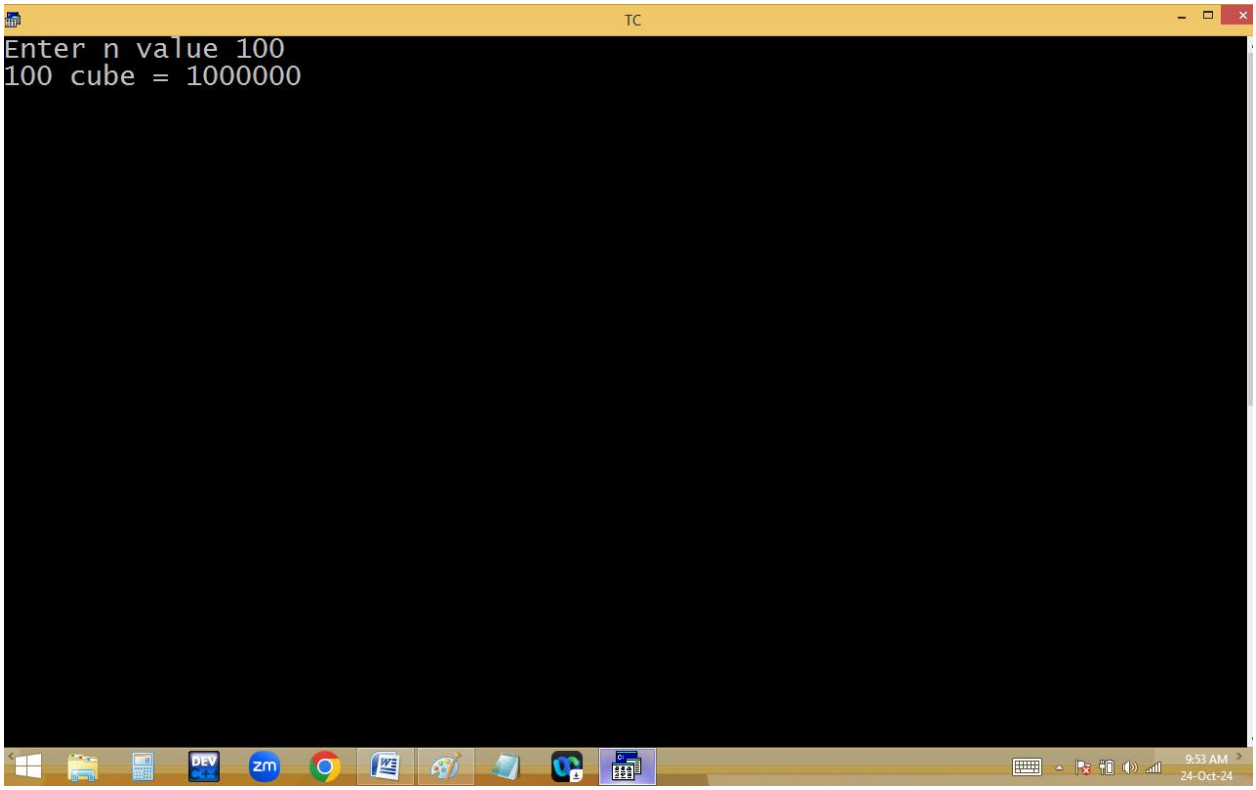
Finding cube value:

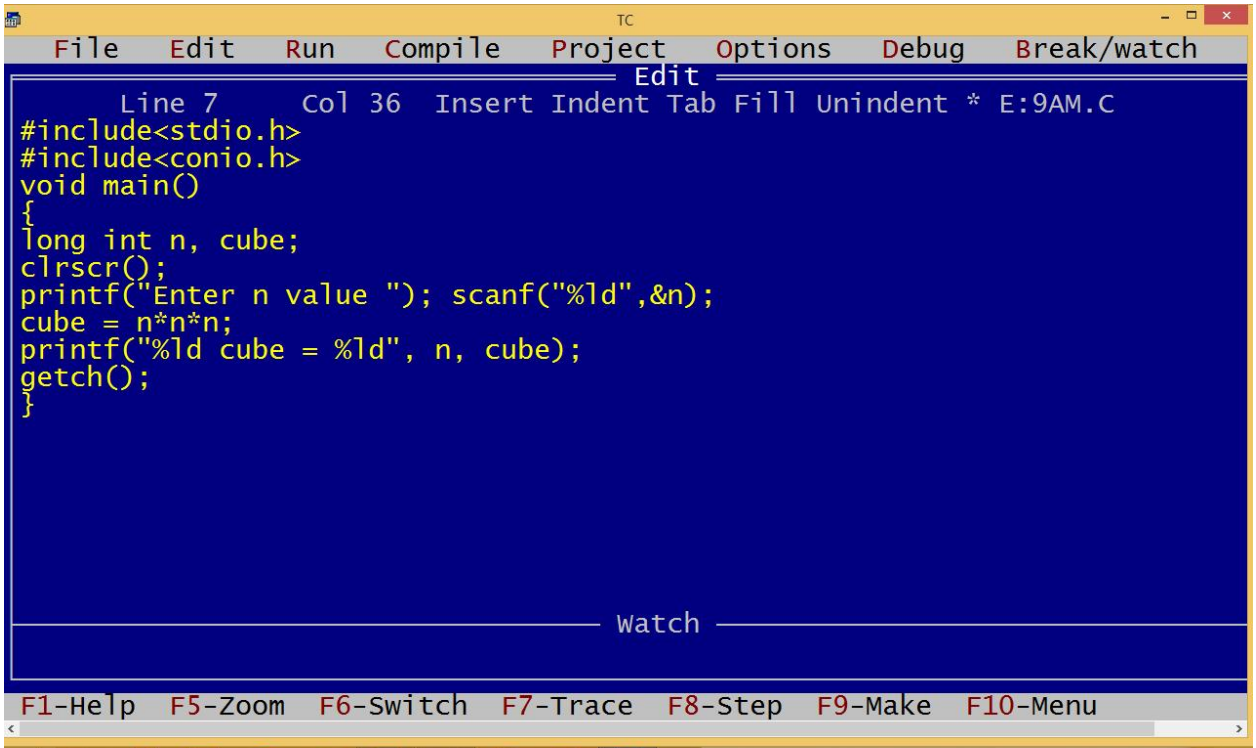

TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 9 Col 33 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n, cube;
clrscr();
printf("Enter n value "); scanf("%d",&n);
cube = n*n*n;
printf("%d cube = %d", n, cube);
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu

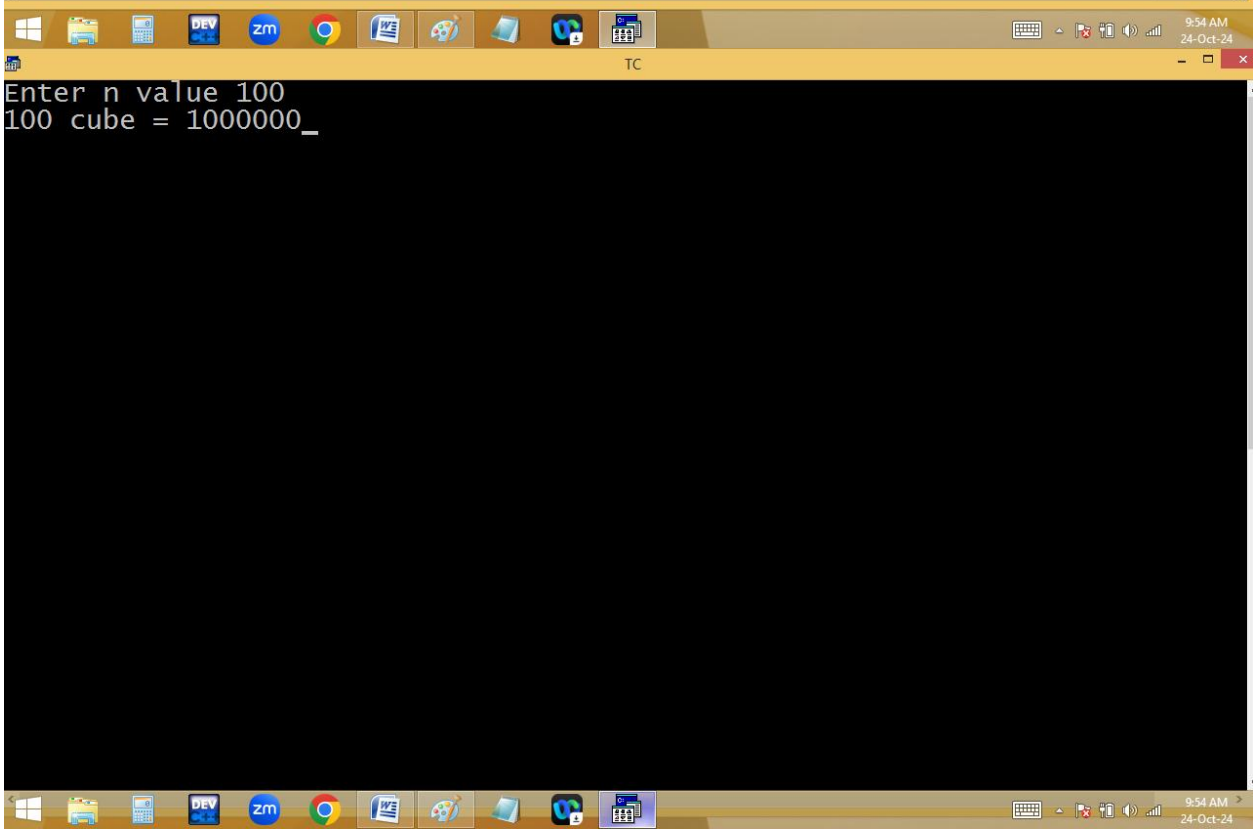

TC
Enter n value 10
10 cube = 1000

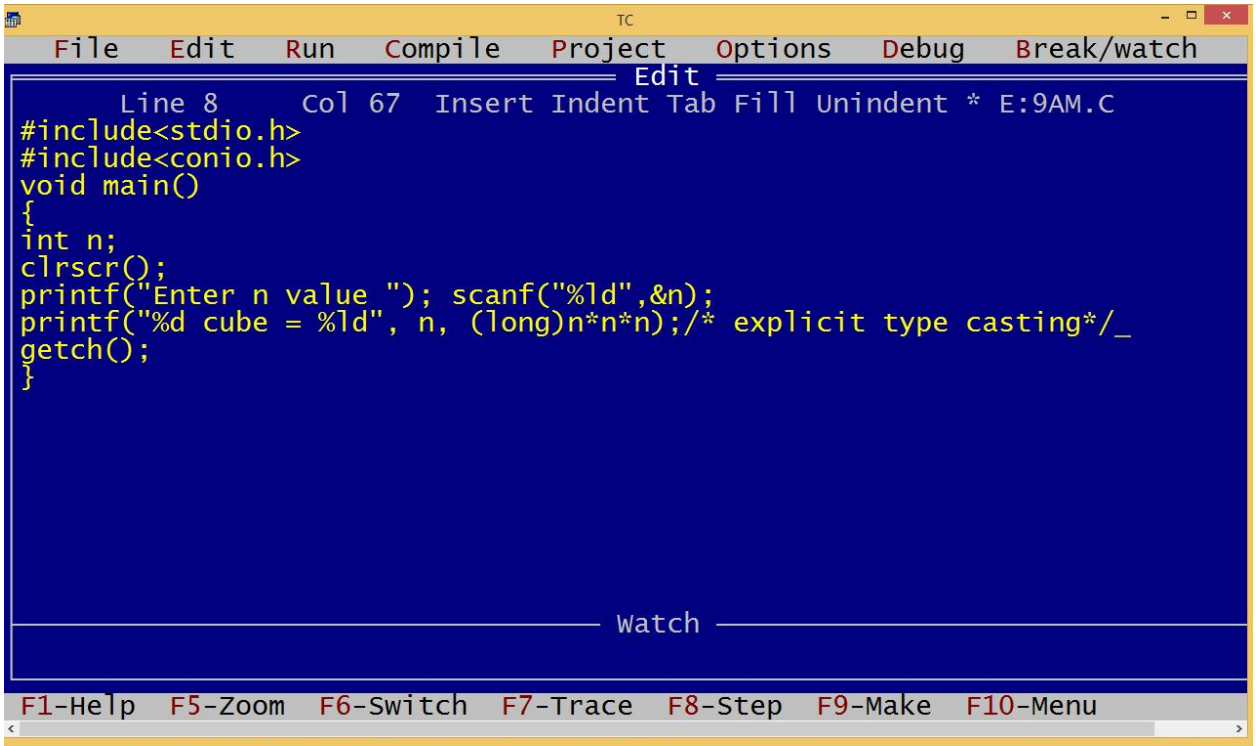

TC
Enter n value 100
100 cube = 16960_

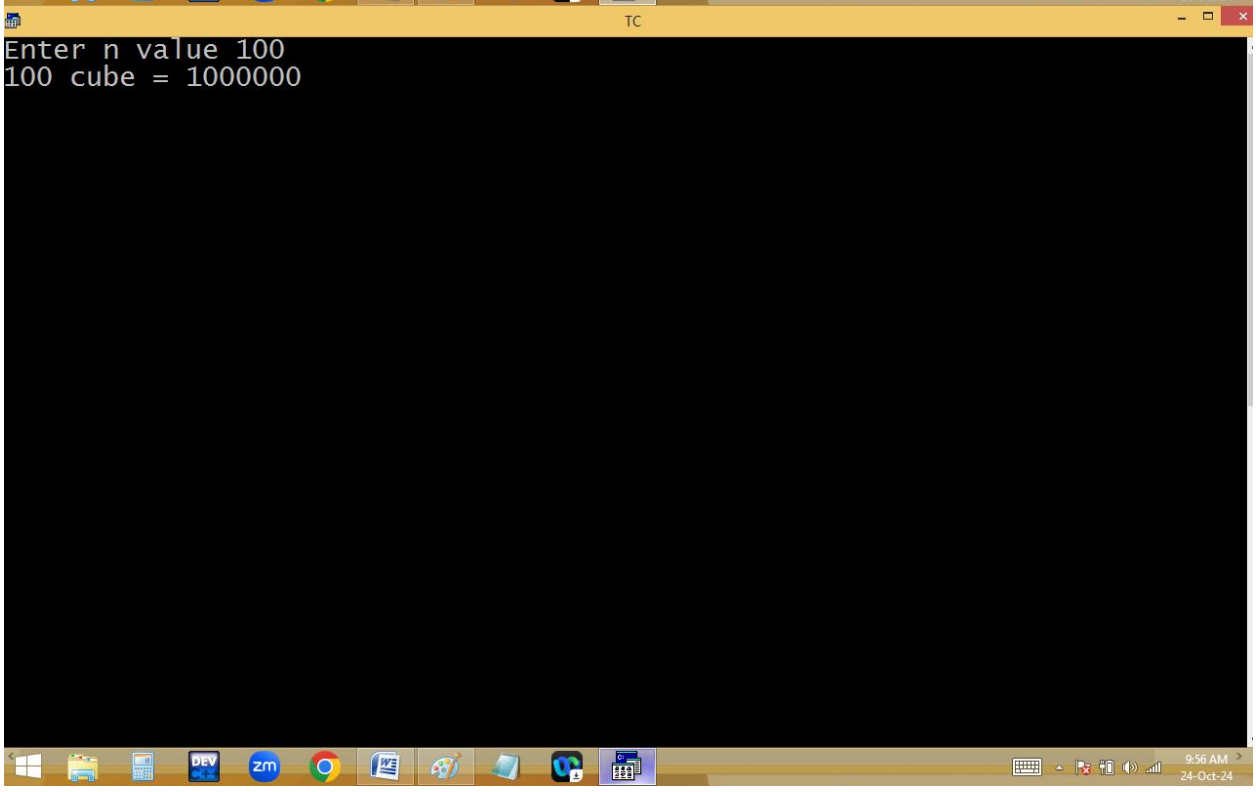

TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 9 Col 48 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n;
long int cube;
clrscr();
printf("Enter n value "); scanf("%d",&n);
cube = (long)n*n*n; /* explicit type casting */_
printf("%d cube = %ld", n, cube);
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu


TC
Enter n value 100
100 cube = 1000000
9:53 AM
24-Oct-24


TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 7 Col 36 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long int n, cube;
clrscr();
printf("Enter n value "); scanf("%ld",&n);
cube = n*n*n;
printf("%ld cube = %ld", n, cube);
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu

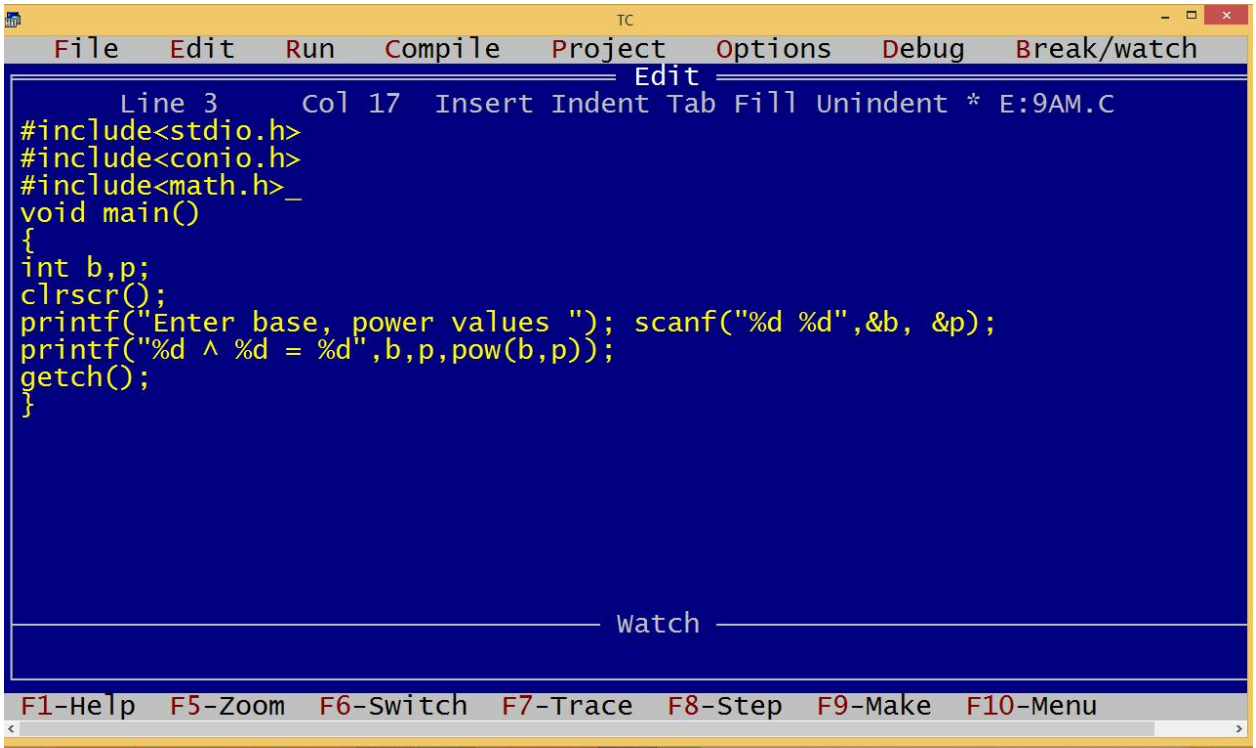

TC
Enter n value 100
100 cube = 1000000_

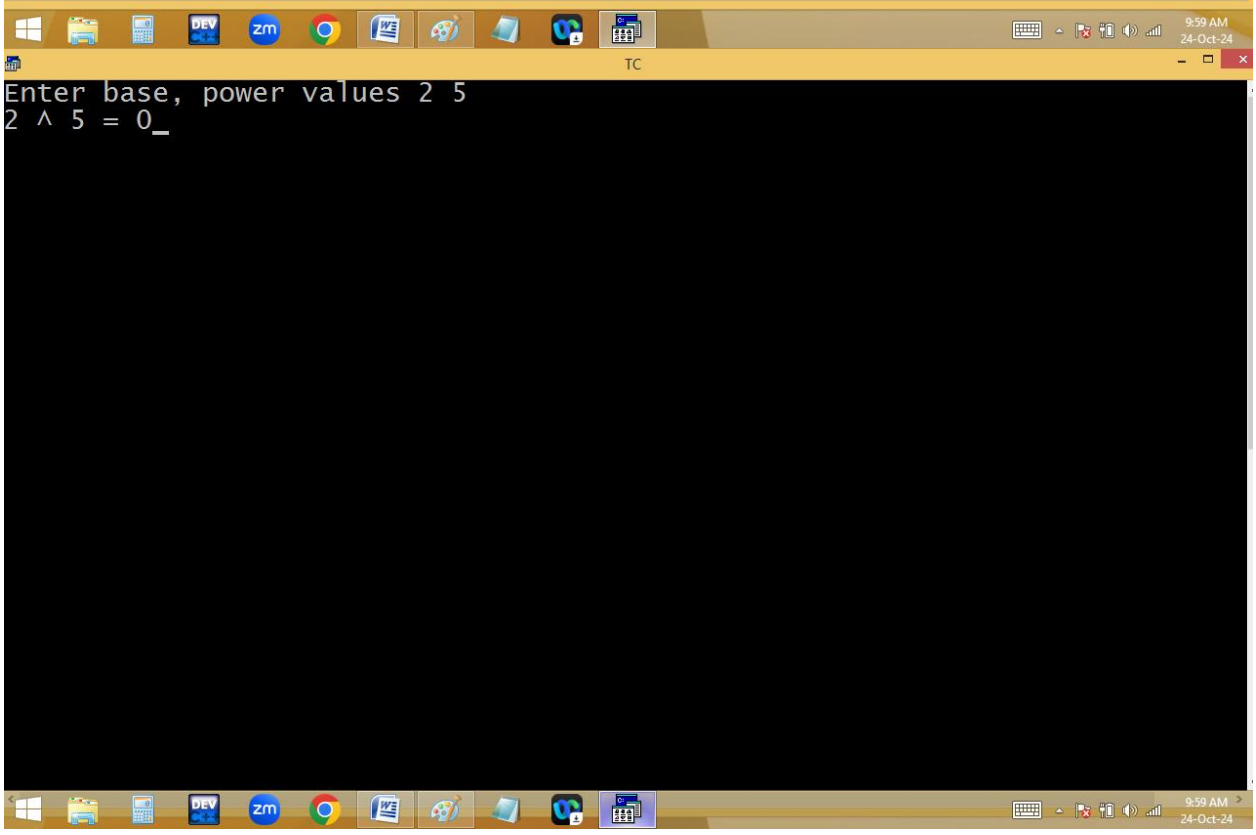

TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 8 Col 67 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n;
clrscr();
printf("Enter n value "); scanf("%ld",&n);
printf("%d cube = %ld", n, (long)n*n*n);/* explicit type casting*/_
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu

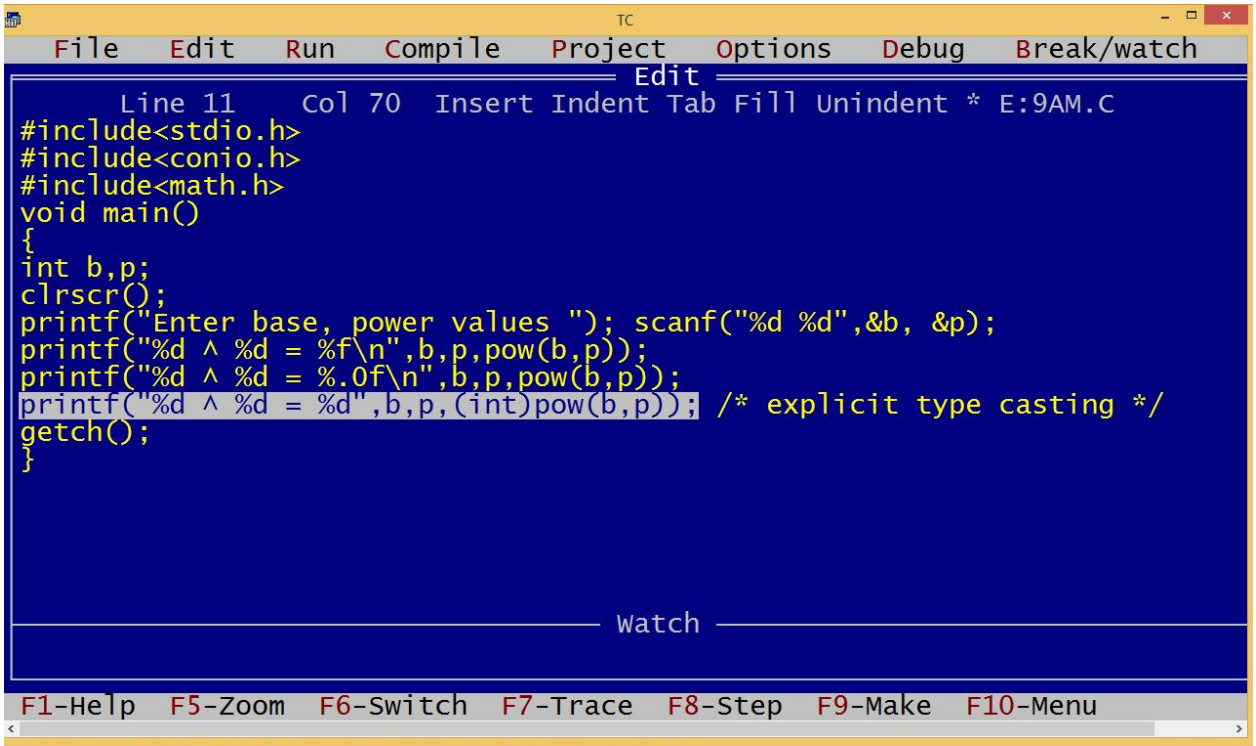

TC
Enter n value 100
100 cube = 1000000

Finding power value:

$2^5=32$

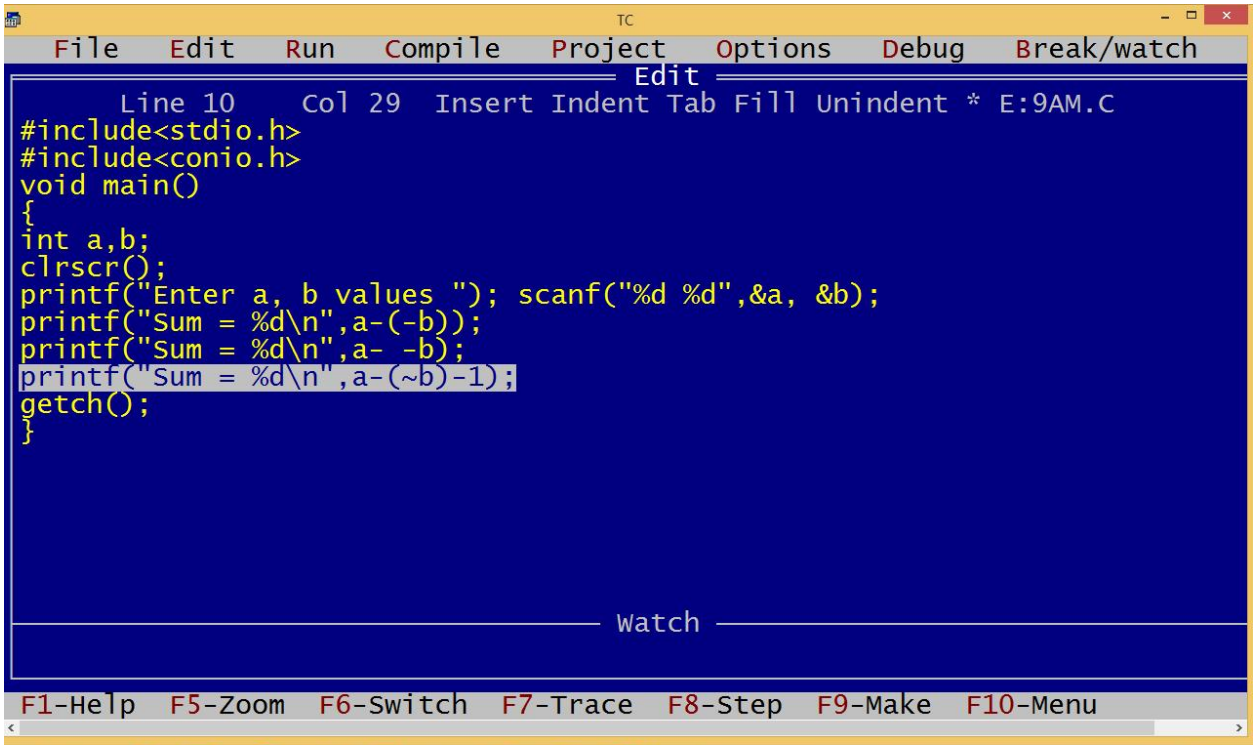

TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 3 Col 17 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
int b,p;
clrscr();
printf("Enter base, power values "); scanf("%d %d",&b, &p);
printf("%d ^ %d = %d",b,p,pow(b,p));
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu

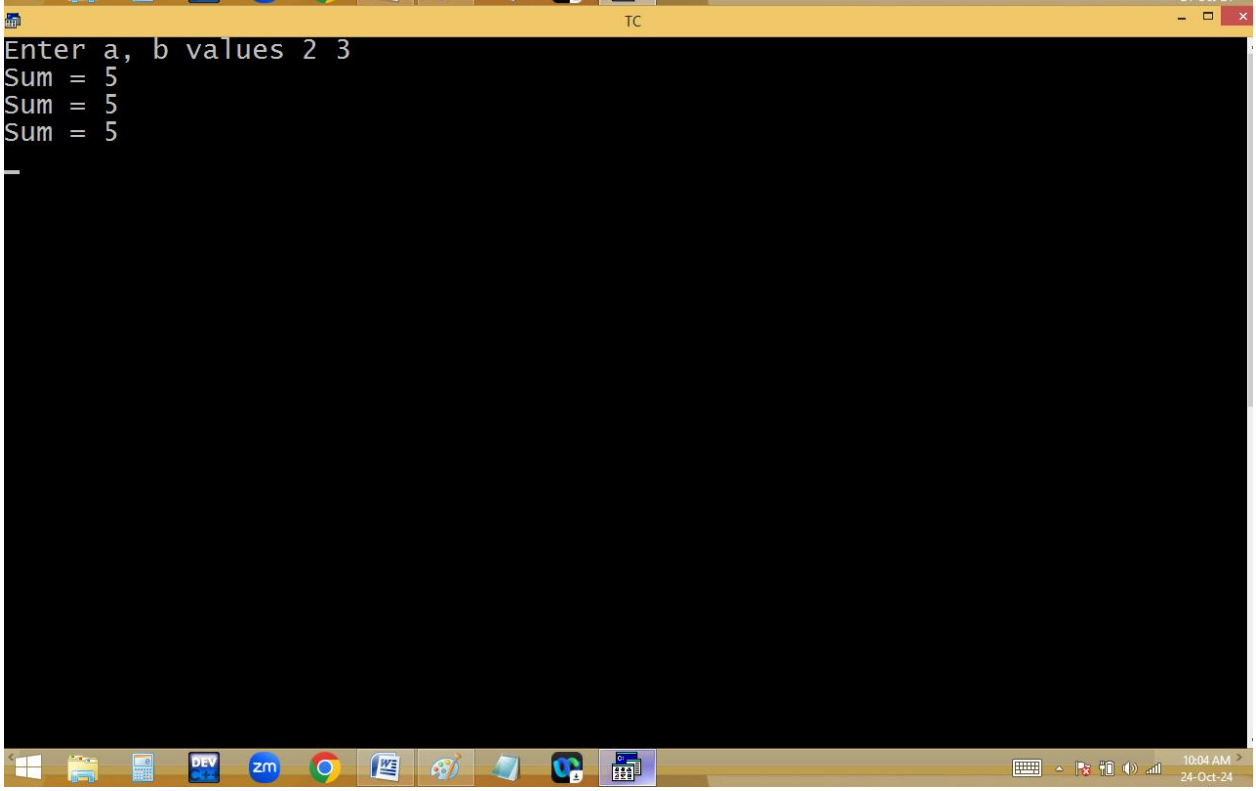

TC
Enter base, power values 2 5
2 ^ 5 = 0


TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 11 Col 70 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
int b,p;
clrscr();
printf("Enter base, power values "); scanf("%d %d",&b, &p);
printf("%d ^ %d = %f\n",b,p,pow(b,p));
printf("%d ^ %d = %.0f\n",b,p,pow(b,p));
printf("%d ^ %d = %d",b,p,(int)pow(b,p)); /* explicit type casting */
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu


TC
Enter base, power values 2 5
2 ^ 5 = 32.000000
2 ^ 5 = 32
2 ^ 5 = 32

Add two numbers without using + operator:





a-(~b)-1

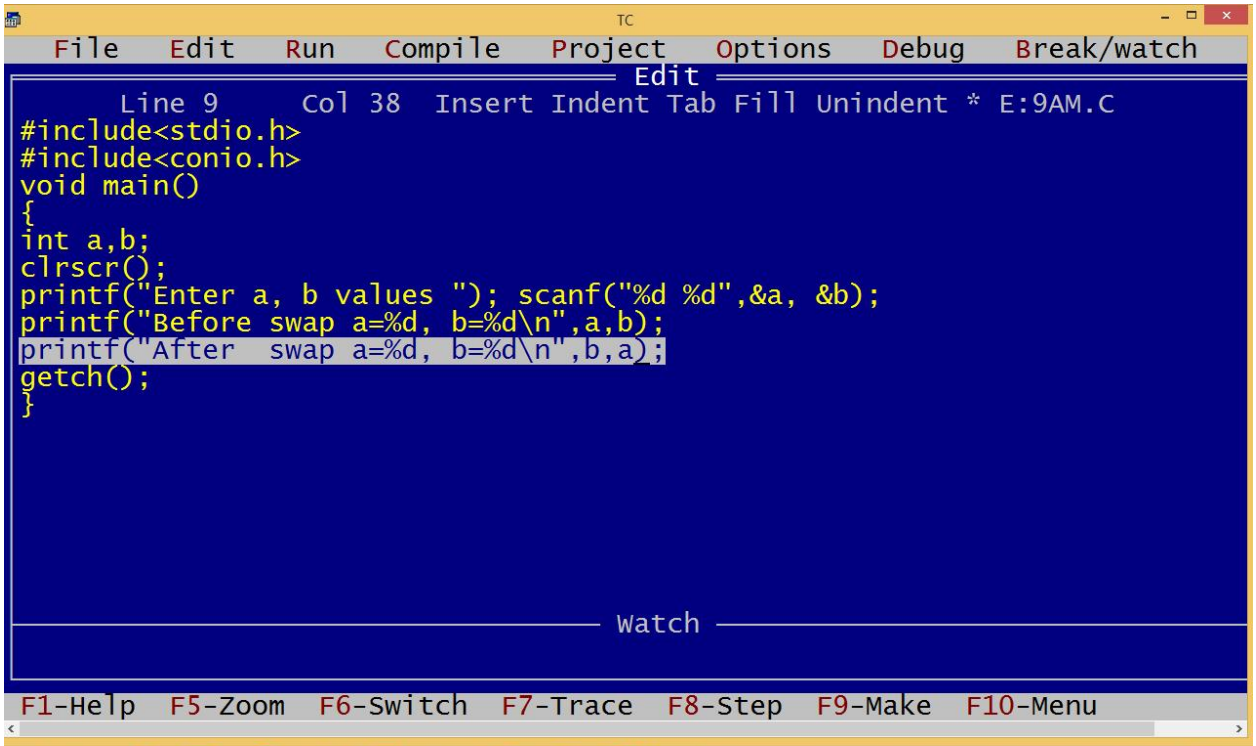
10-(~20)-1

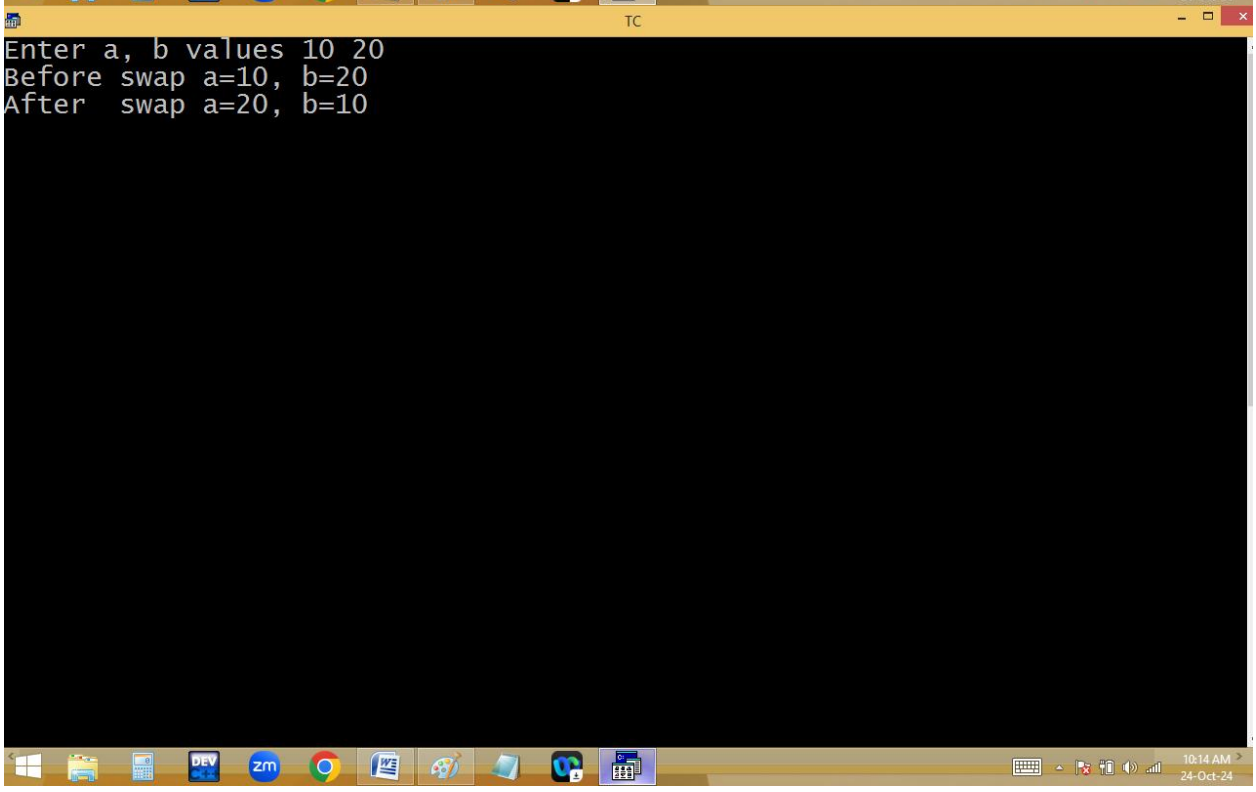
10-(-21)-1

10+21-1=30

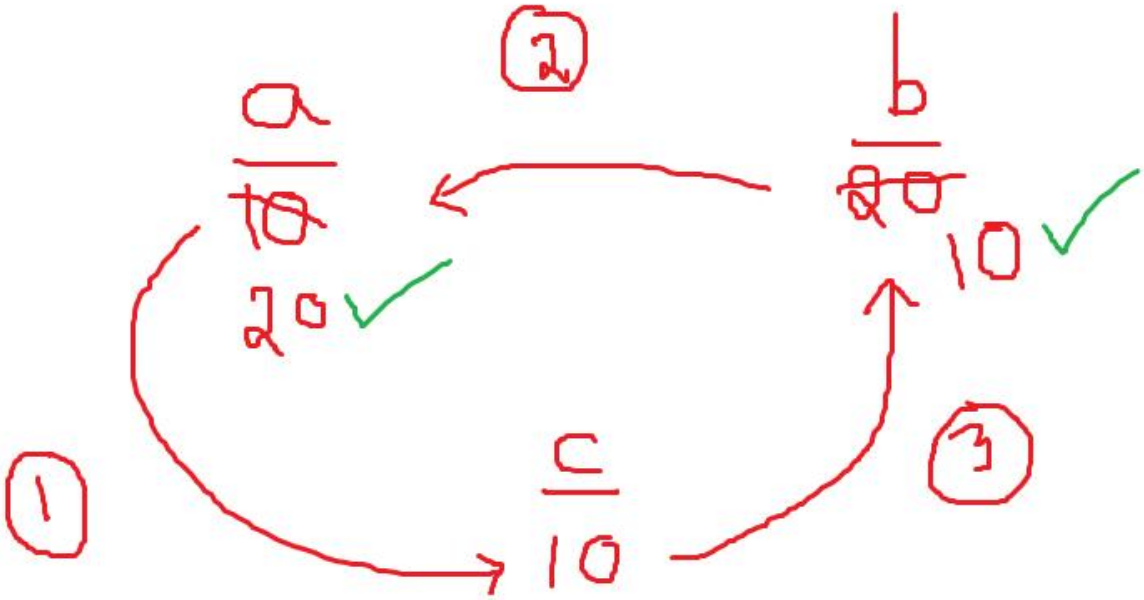
Swap [interchange] of two numbers:

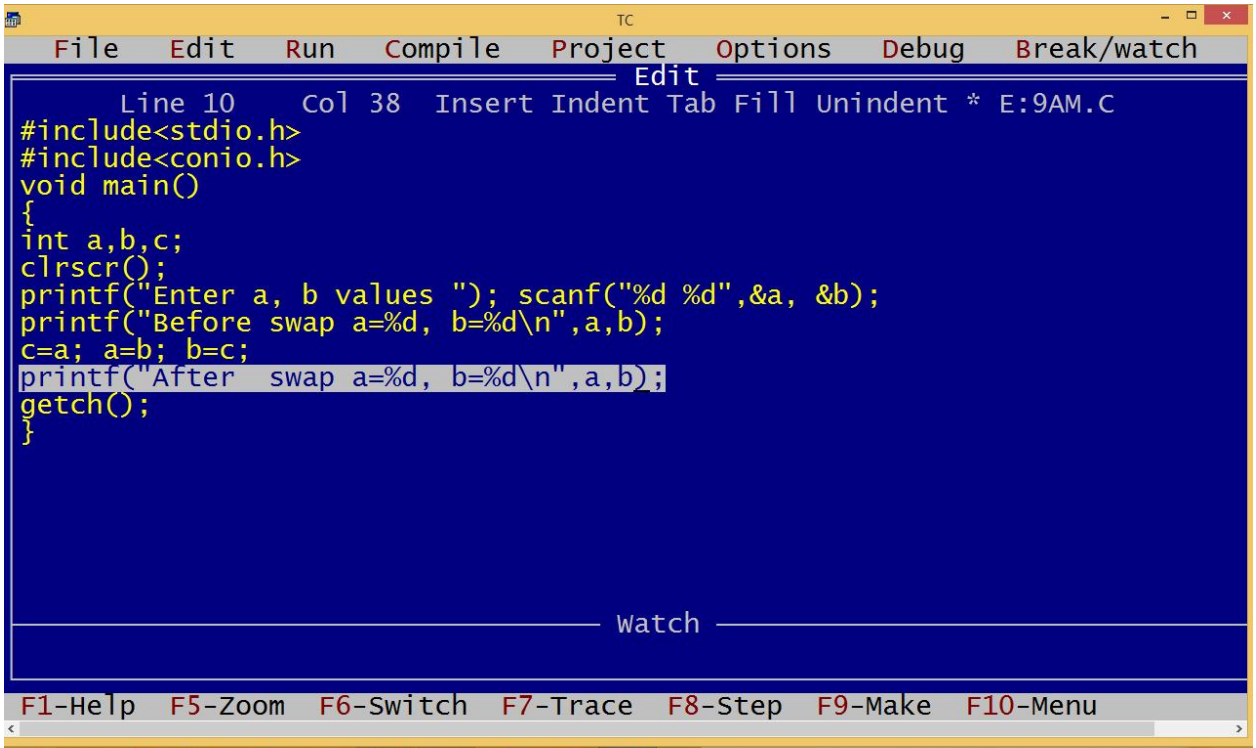
Without using operators:

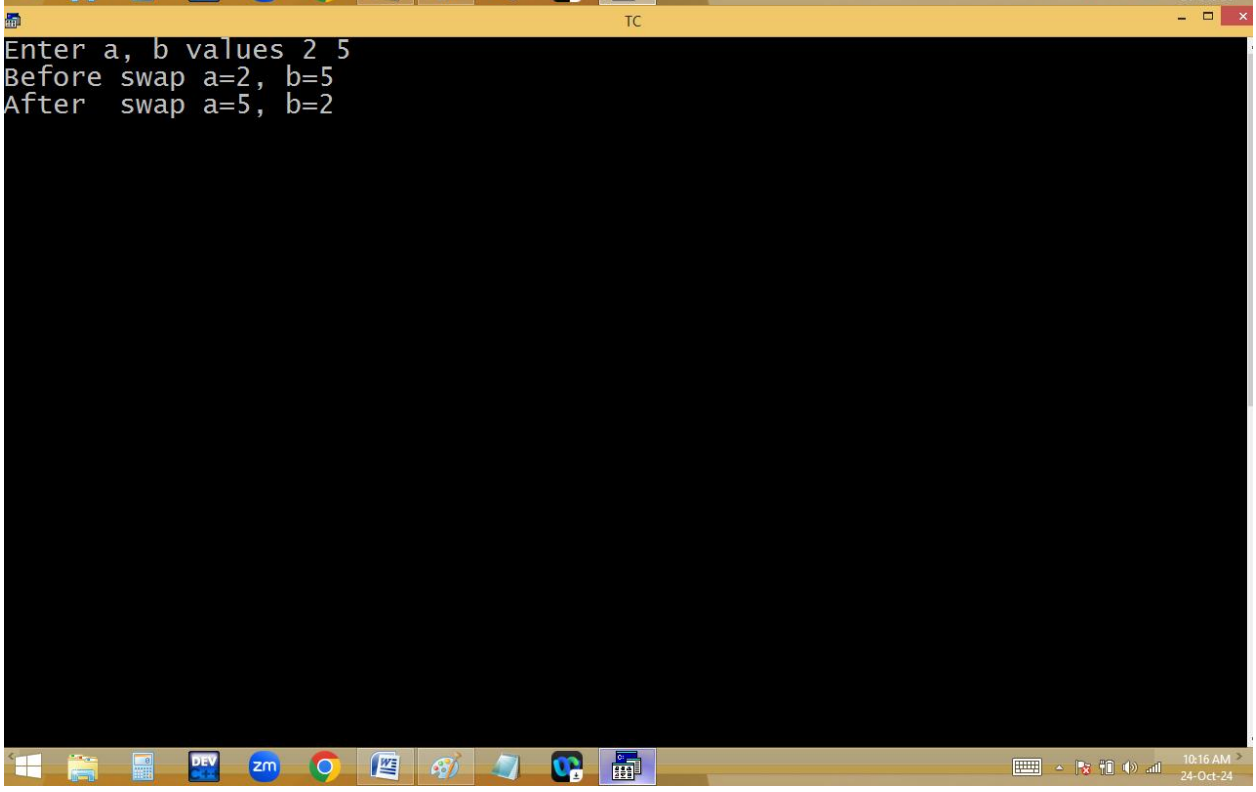

TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 9 Col 38 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a, b values "); scanf("%d %d",&a, &b);
printf("Before swap a=%d, b=%d\n",a,b);
printf("After swap a=%d, b=%d\n",b,a);
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu


TC
Enter a, b values 10 20
Before swap a=10, b=20
After swap a=20, b=10

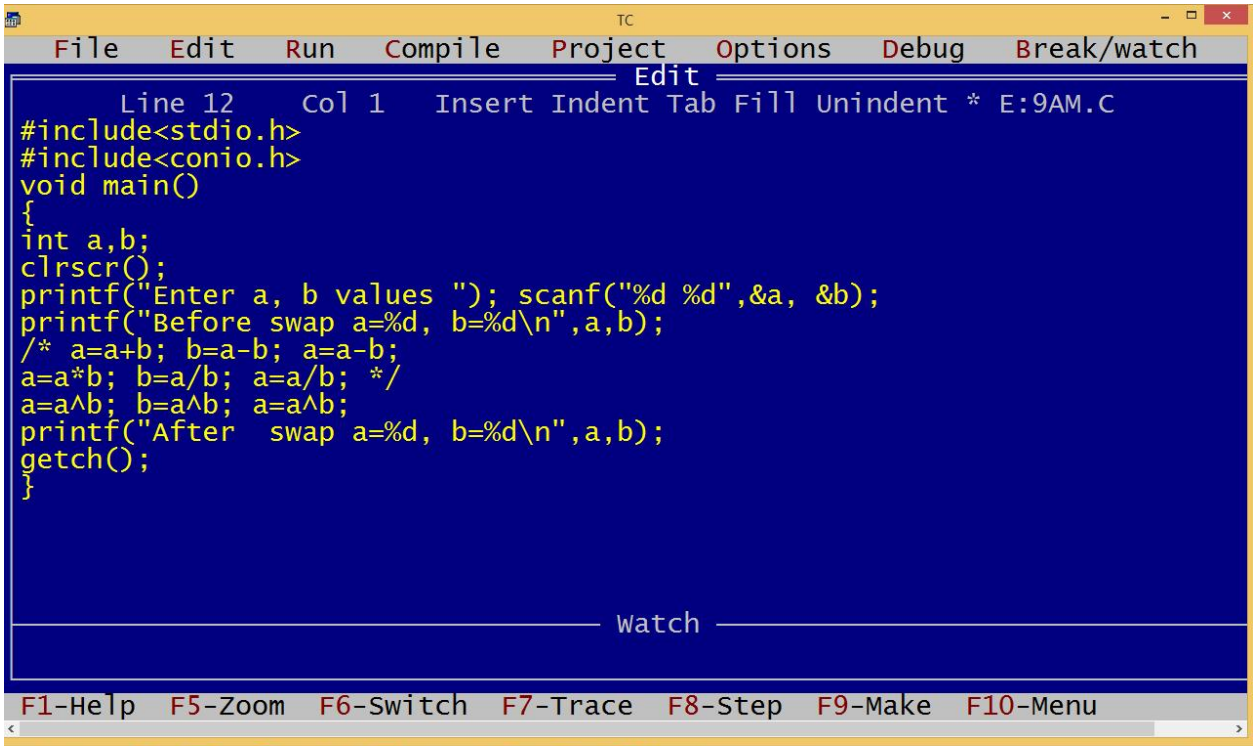
Using 3rd variable:

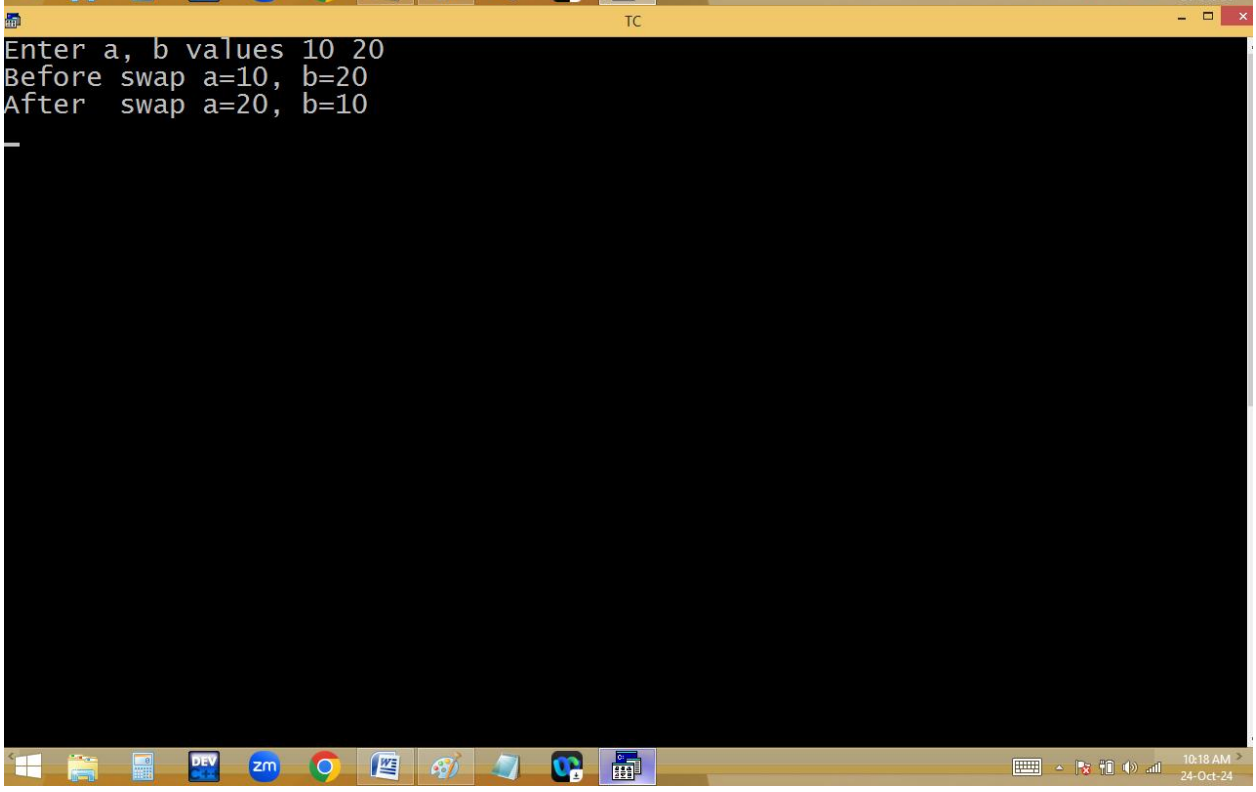



TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 10 Col 38 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b,c;
clrscr();
printf("Enter a, b values "); scanf("%d %d",&a, &b);
printf("Before swap a=%d, b=%d\n",a,b);
c=a; a=b; b=c;
printf("After swap a=%d, b=%d\n",a,b);
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu


TC
Enter a, b values 2 5
Before swap a=2, b=5
After swap a=5, b=2

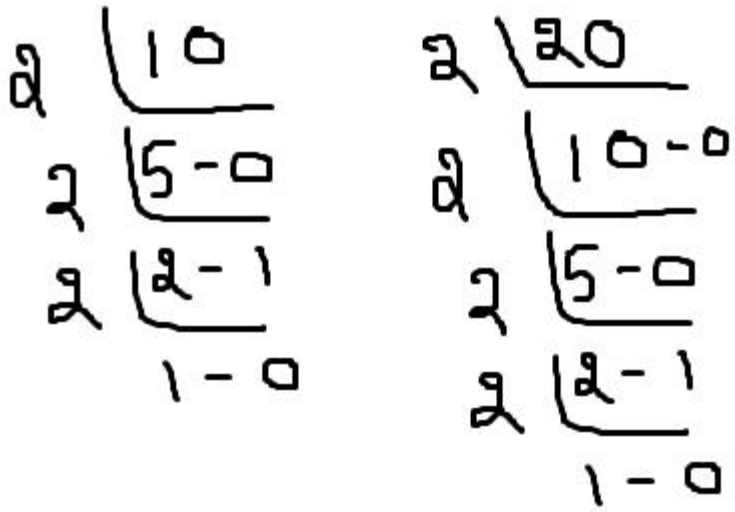
Without using 3rd variable:


TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 12 Col 1 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a, b values "); scanf("%d %d",&a, &b);
printf("Before swap a=%d, b=%d\n",a,b);
/* a=a+b; b=a-b; a=a-b;
a=a*b; b=a/b; a=a/b; */
a=a^b; b=a^b; a=a^b;
printf("After swap a=%d, b=%d\n",a,b);
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu


TC
Enter a, b values 10 20
Before swap a=10, b=20
After swap a=20, b=10

a=10 ==> 30 ==> 20
b=20 ==> 10
a=a+b==>10+20=30
b=a-b==>30-20=10
a=a-b==>30-10=20

a=10 ==> 200 ==> 20
b=20 ==> 10
a=a*b==>10*20=200
b=a/b==>200/20=10
a=a/b==>200/10=20



a=10, b=20

a=a^b;

a=10=01010
b=20=10100
11110=30

16 + 8 + 4 + 2

b=a^b;
a=30=11110
b=20=10100
01010=10

a=a^b
a=30=11110
b=10=01010
10100=20

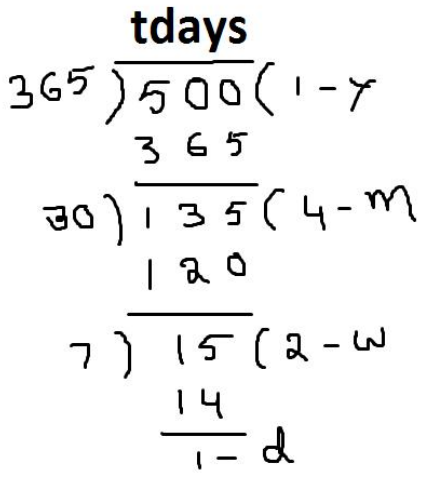
a=30, b=20

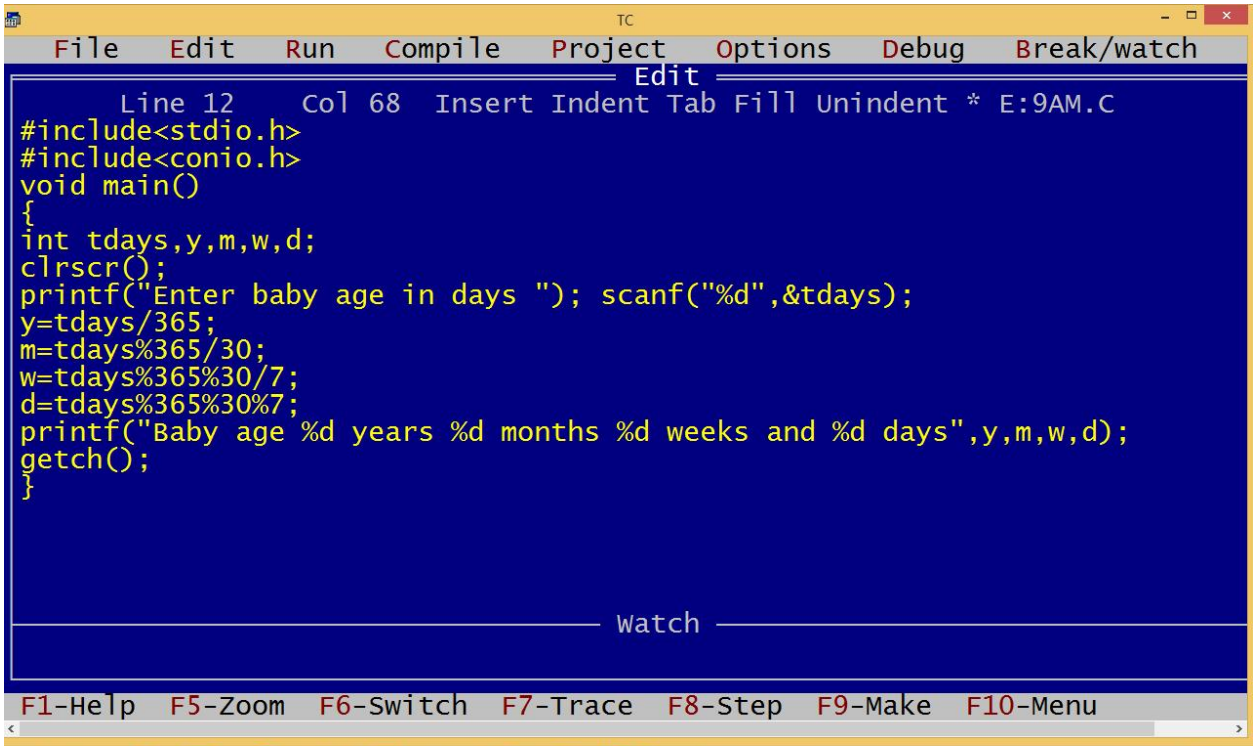
a=30, b=10

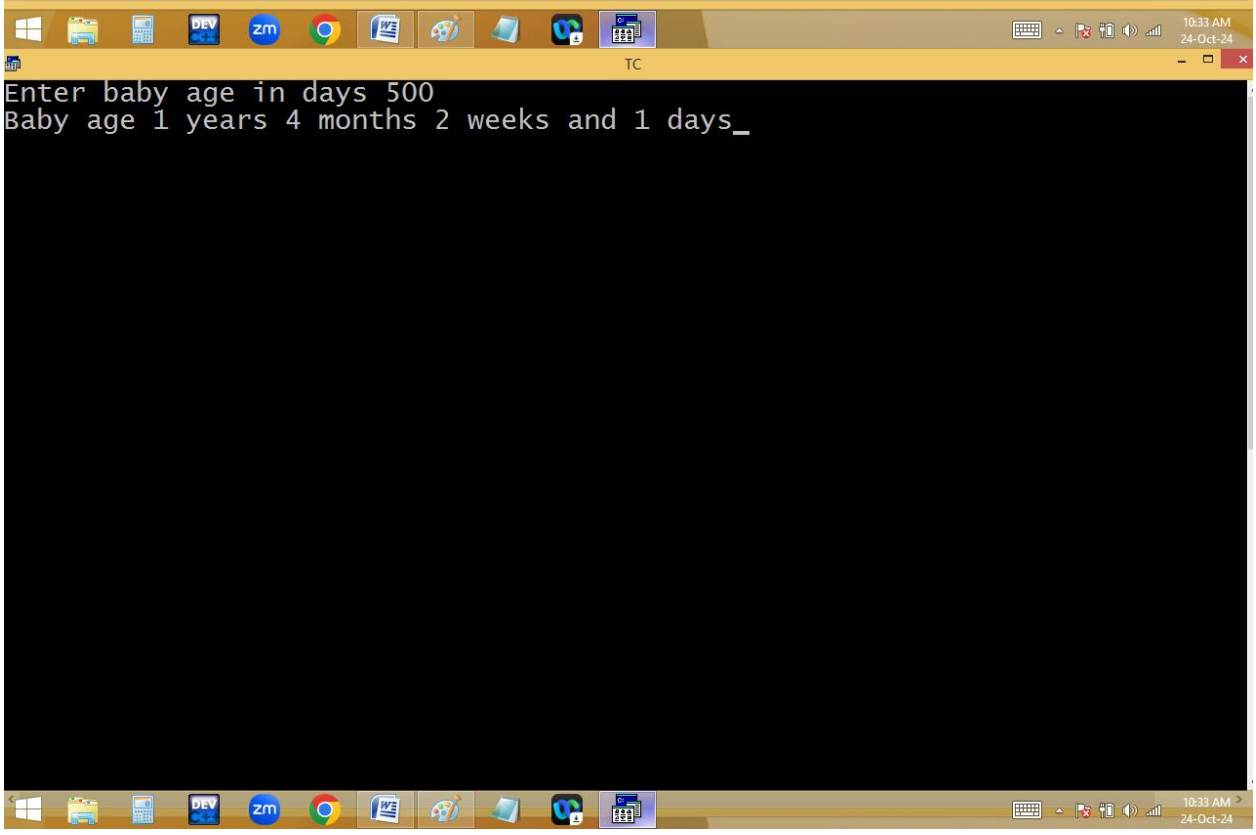
a=20, b=10

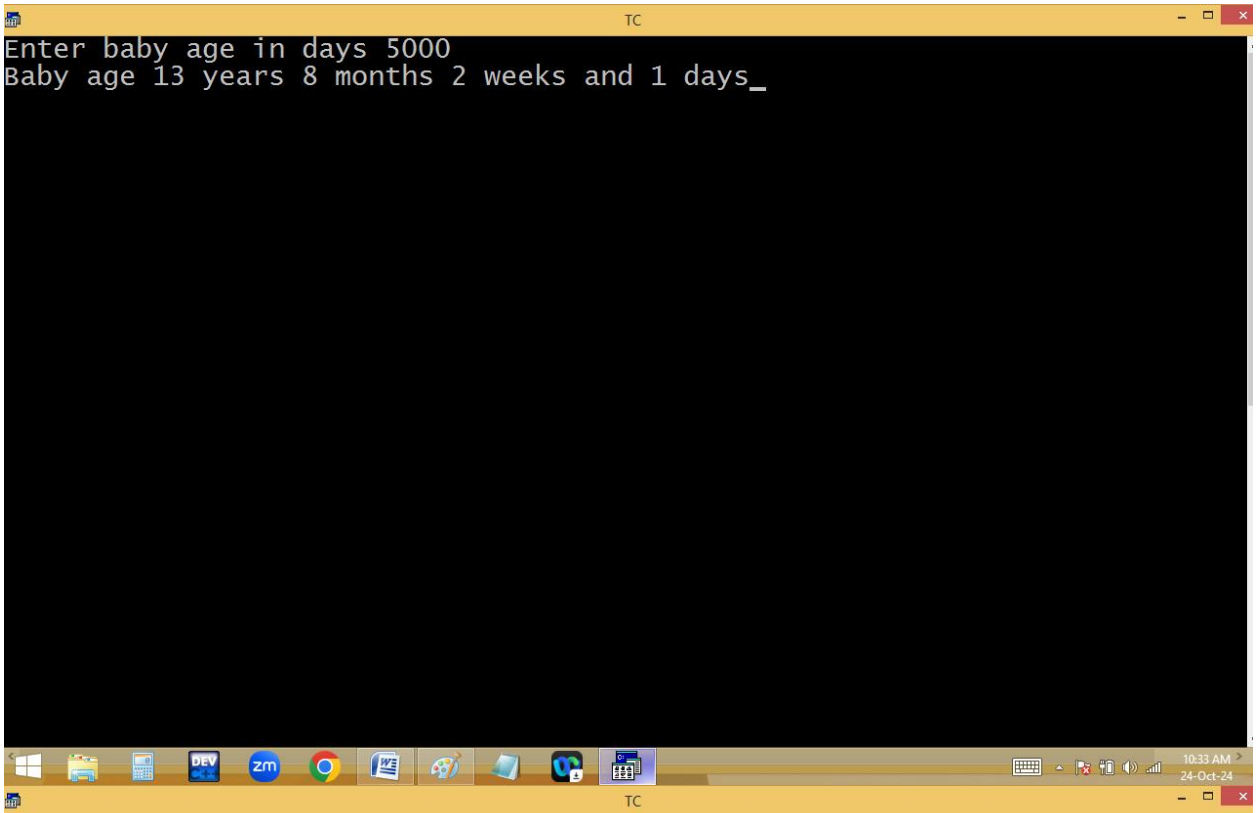
Read a baby age in no of days and find the baby age in years, months, weeks and days.

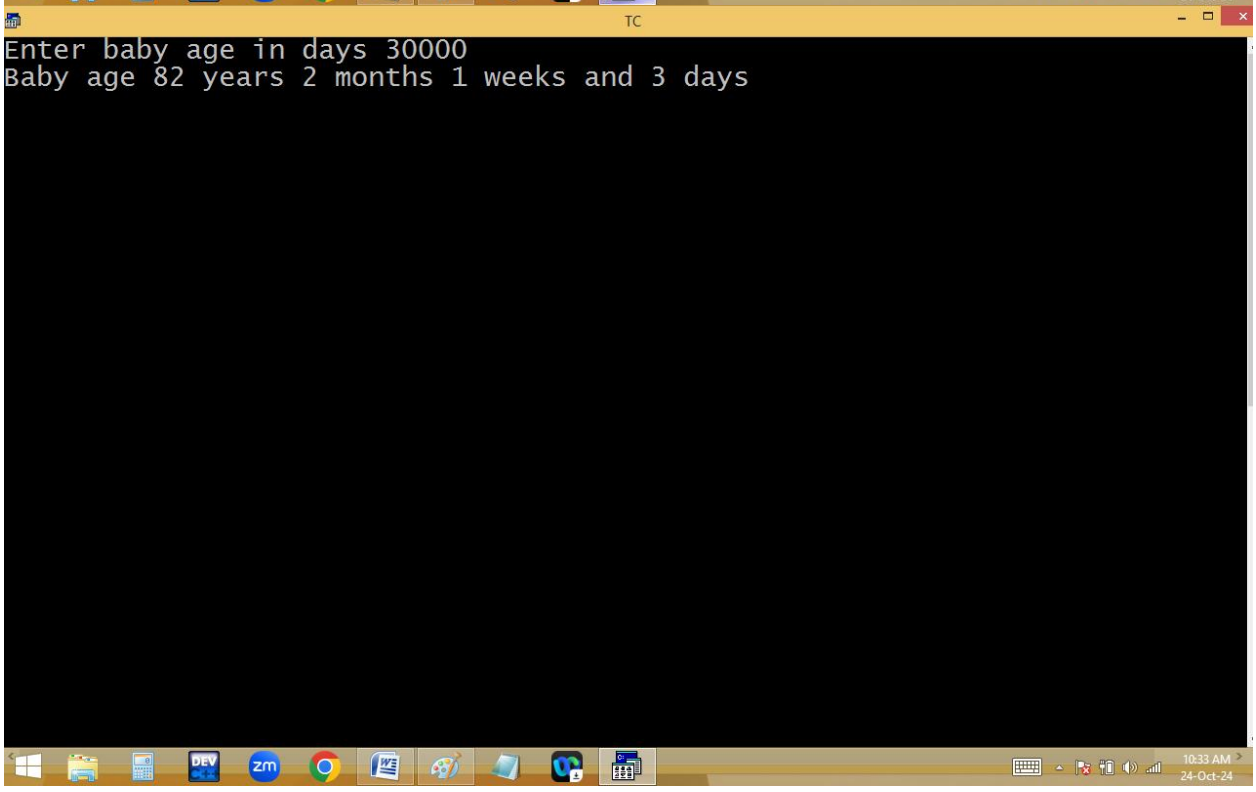
y=500/365=1
m=500%365=135/30=4
w=500%365=135%30=15/7=2
d=500%365=135%30=15%7=1

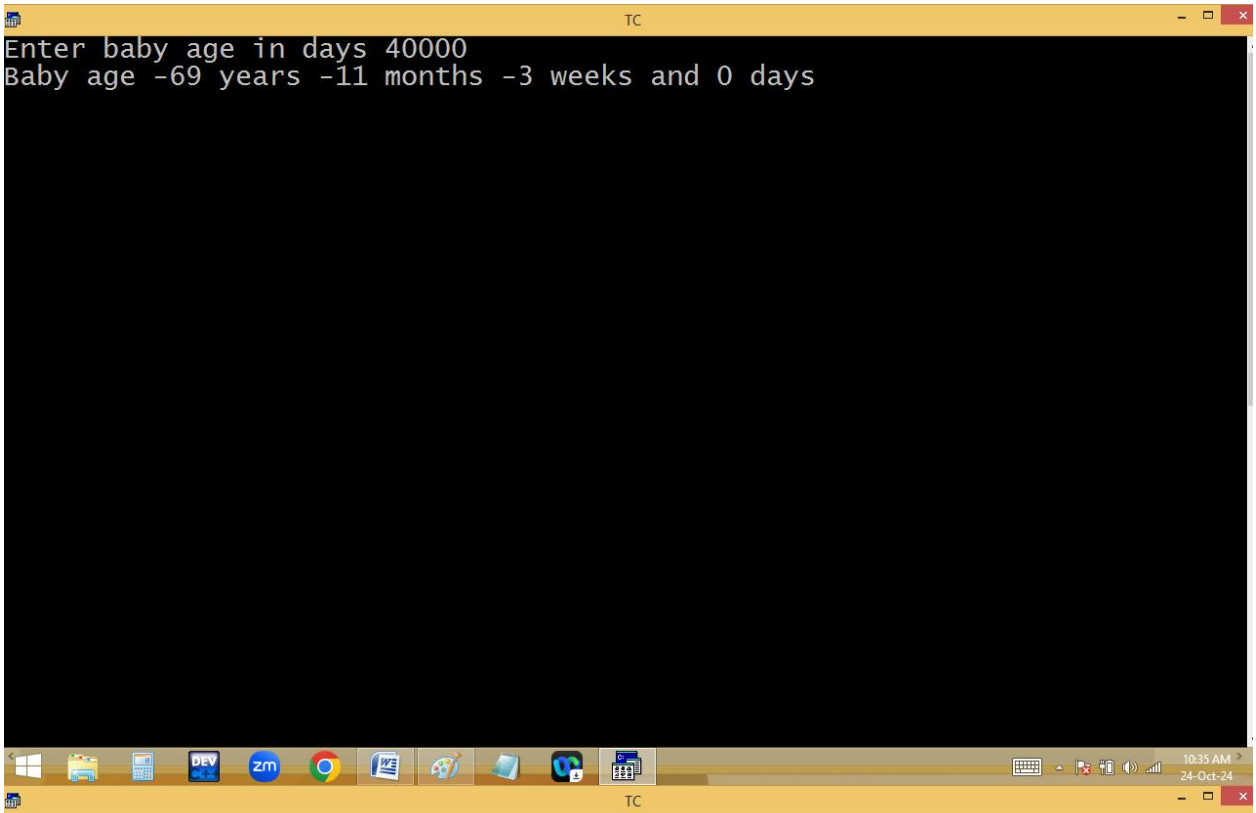


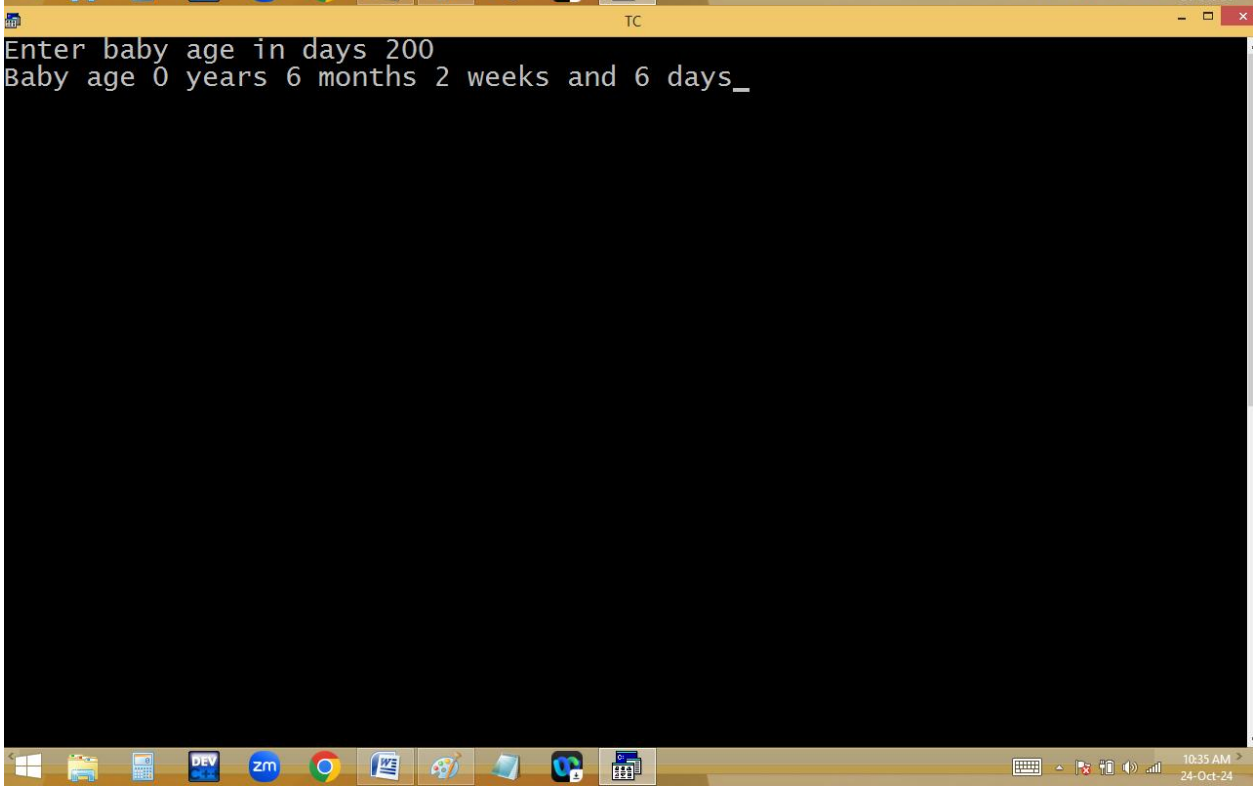

TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 12 Col 68 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int tdays,y,m,w,d;
clrscr();
printf("Enter baby age in days "); scanf("%d",&tdays);
y=tdays/365;
m=tdays%365/30;
w=tdays%365%30/7;
d=tdays%365%30%7;
printf("Baby age %d years %d months %d weeks and %d days",y,m,w,d);
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu

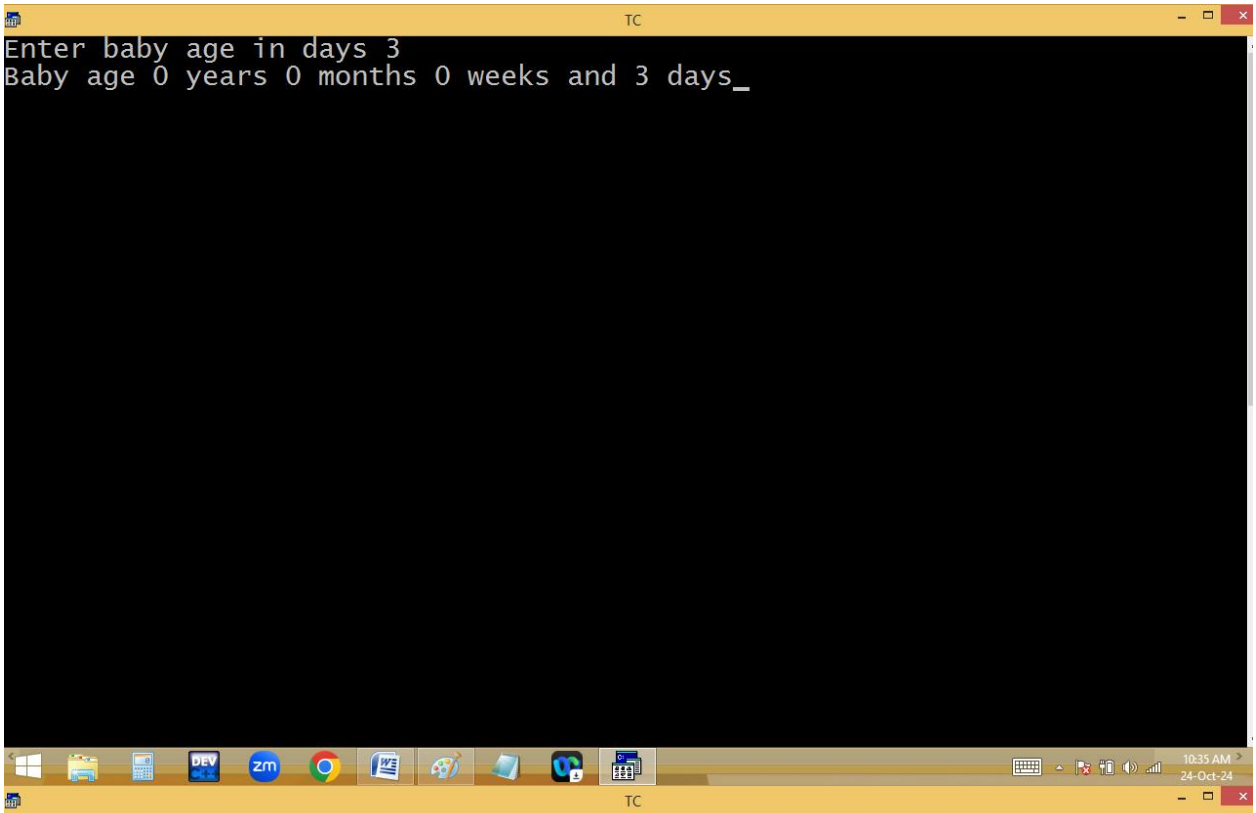

TC
Enter baby age in days 500
Baby age 1 years 4 months 2 weeks and 1 days

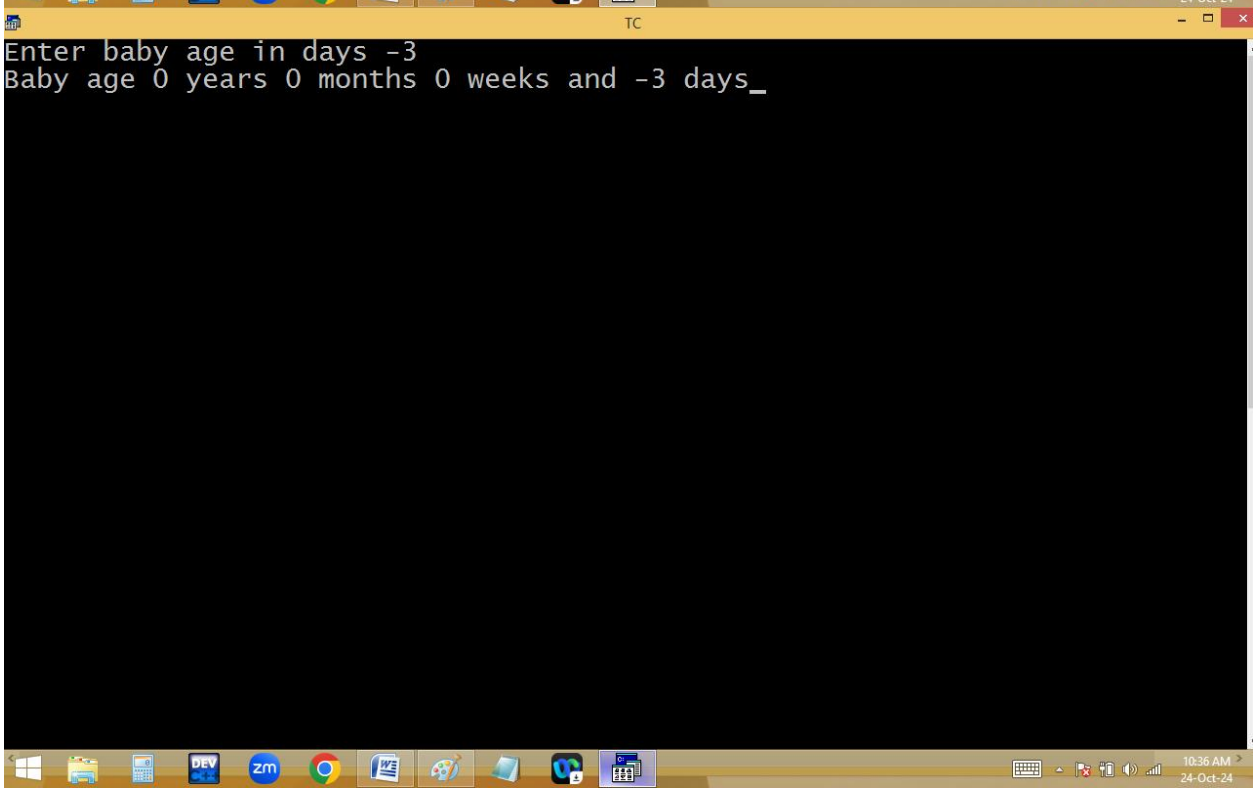

TC
Enter baby age in days 5000
Baby age 13 years 8 months 2 weeks and 1 days
10:33 AM
24-Oct-24


TC
Enter baby age in days 30000
Baby age 82 years 2 months 1 weeks and 3 days
10:33 AM
24-Oct-24


TC
Enter baby age in days 40000
Baby age -69 years -11 months -3 weeks and 0 days


TC
Enter baby age in days 200
Baby age 0 years 6 months 2 weeks and 6 days_

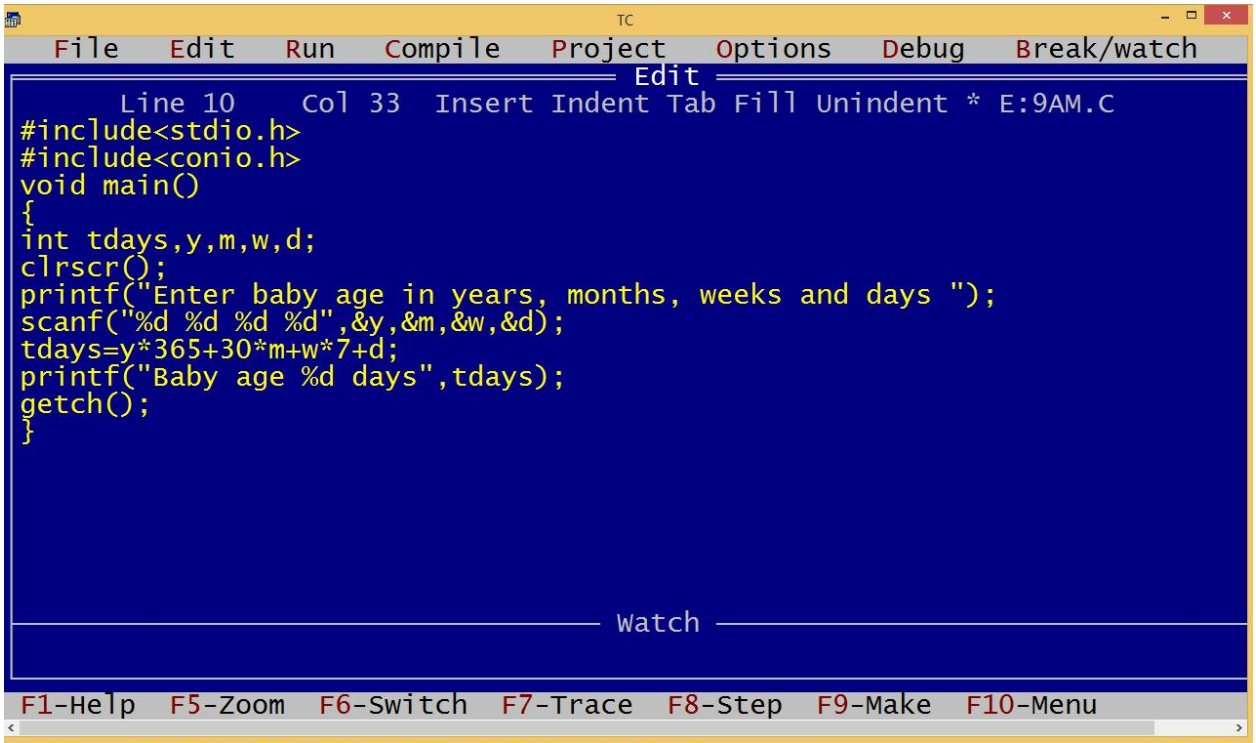

TC
Enter baby age in days 3
Baby age 0 years 0 months 0 weeks and 3 days_
10:35 AM
24-Oct-24

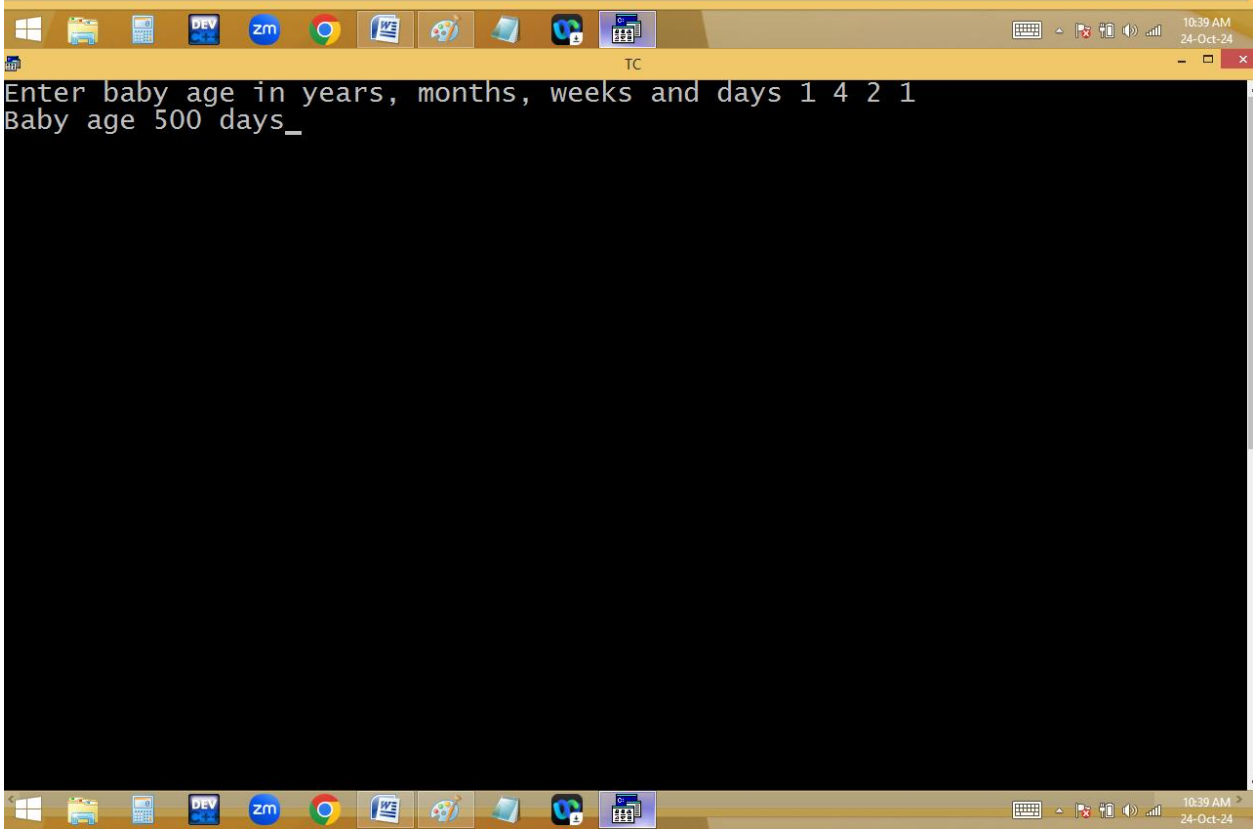

TC
Enter baby age in days -3
Baby age 0 years 0 months 0 weeks and -3 days_
10:36 AM
24-Oct-24

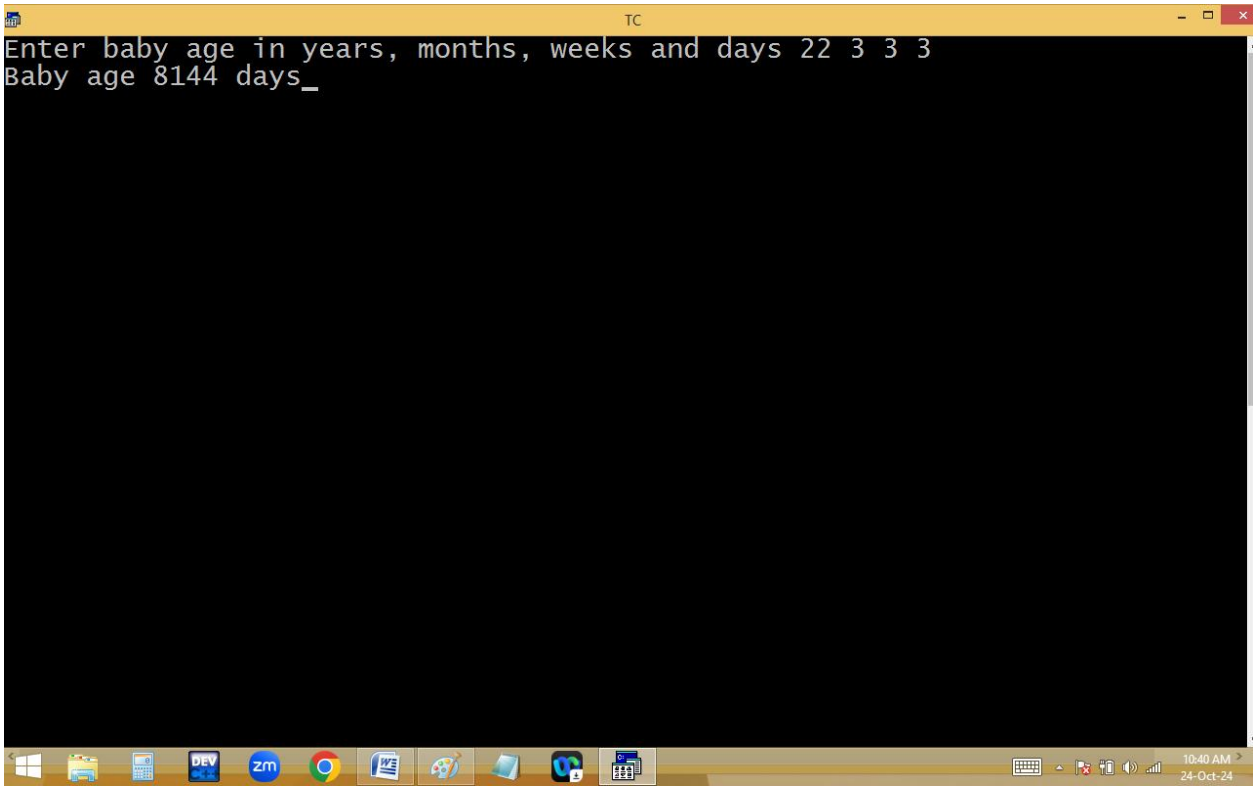
Read baby age in years, months, weeks and days. Find total no of days.

1 y 4 m 2 w 4 days = 500 days

1 * 365 + 4*30 + 2*7 + 1 = 500days


TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 10 Col 33 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int tdays,y,m,w,d;
clrscr();
printf("Enter baby age in years, months, weeks and days ");
scanf("%d %d %d %d",&y,&m,&w,&d);
tdays=y*365+30*m+w*7+d;
printf("Baby age %d days",tdays);
getch();
}
Watch
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu


TC
Enter baby age in years, months, weeks and days 1 4 2 1
Baby age 500 days_



Celsius to Fahrenheit conversion: