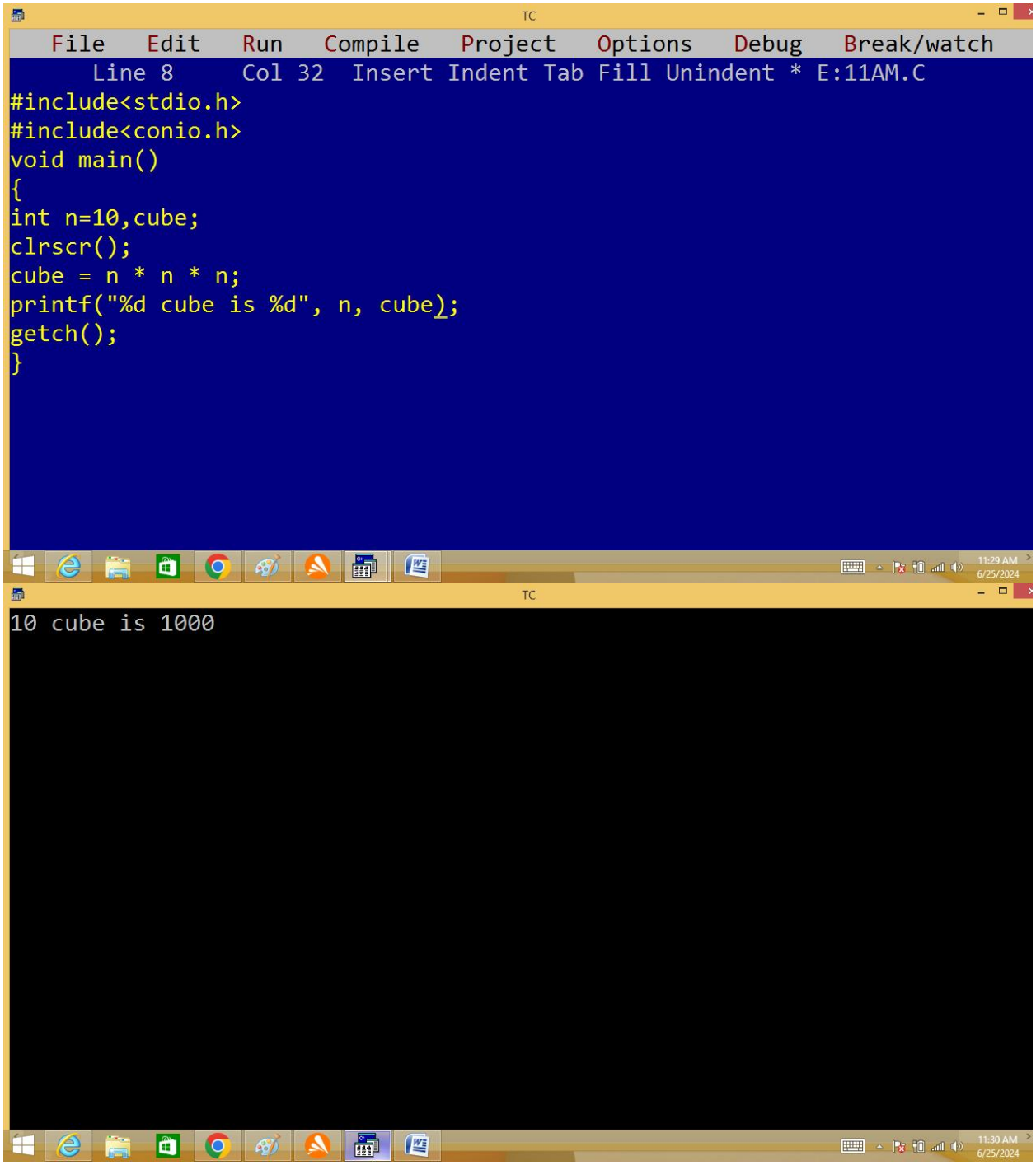
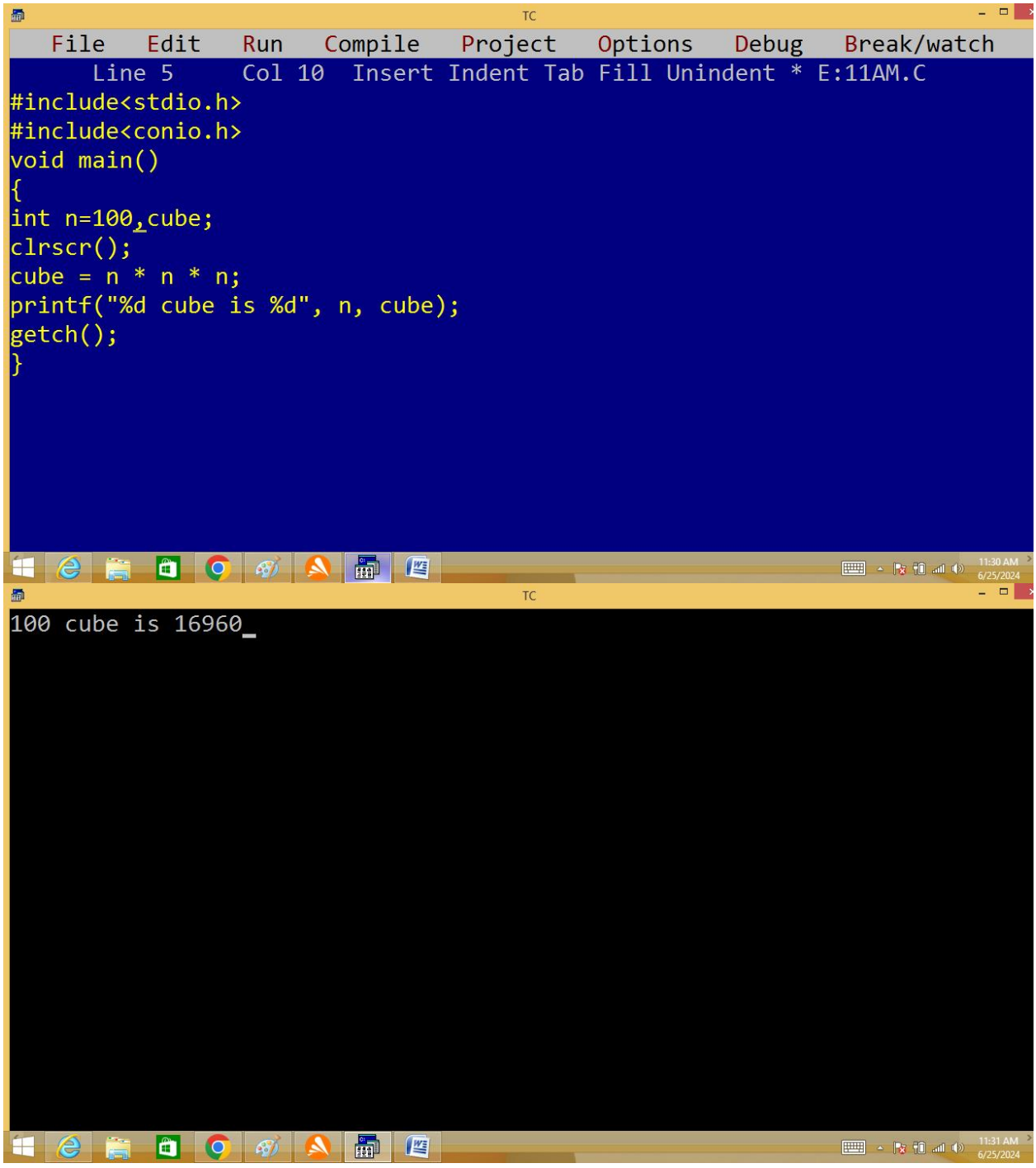
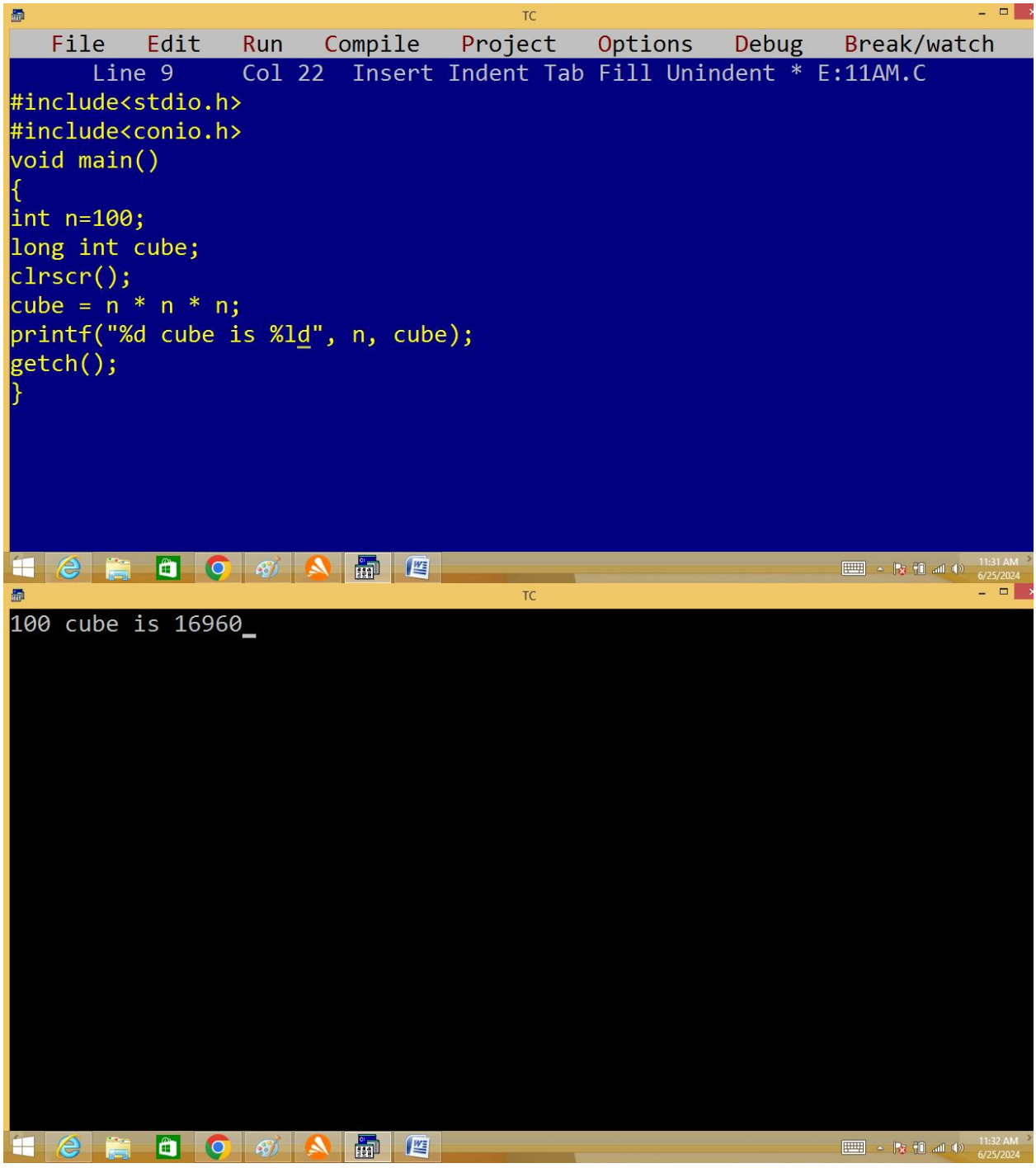
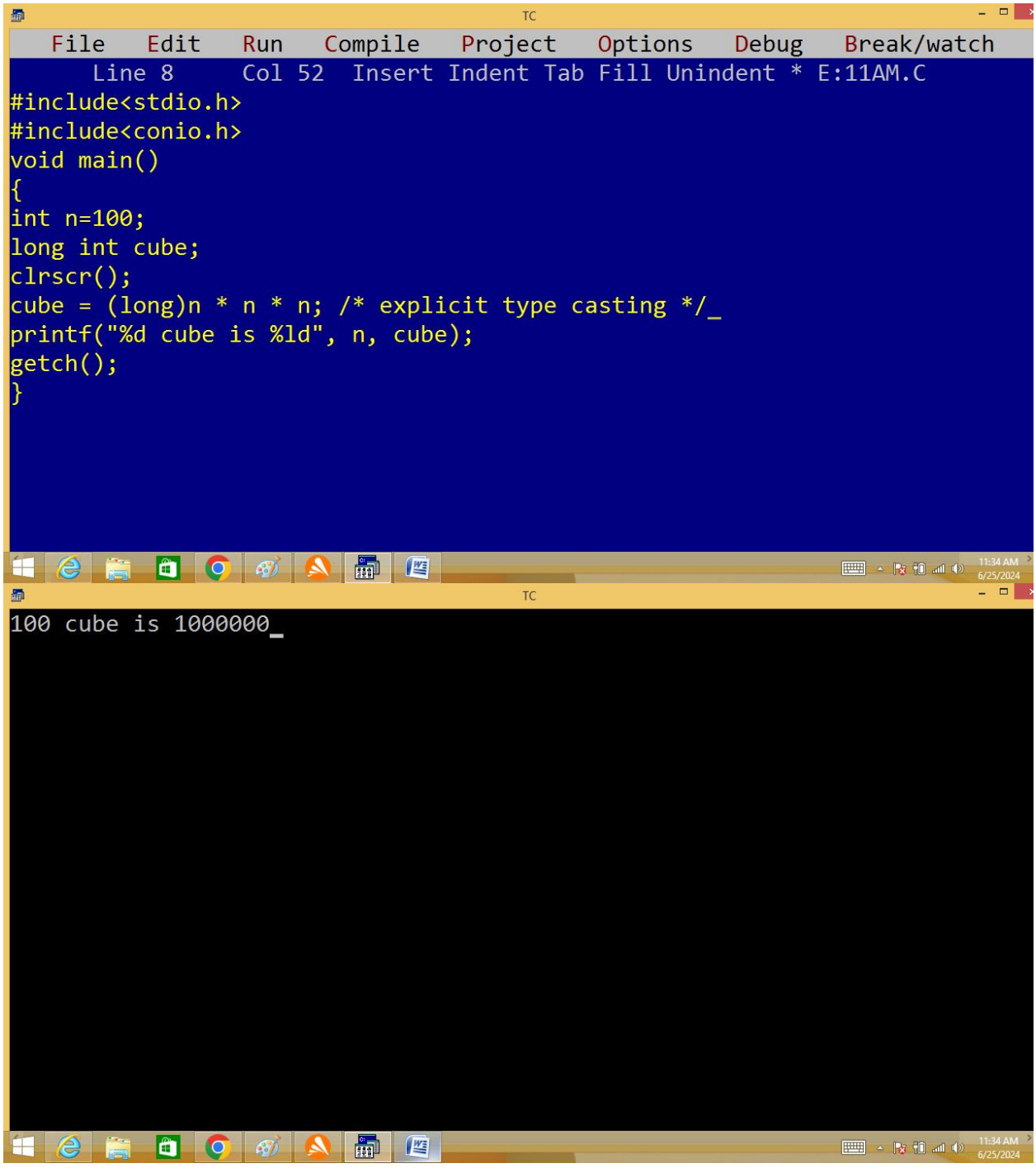
Finding cube value:

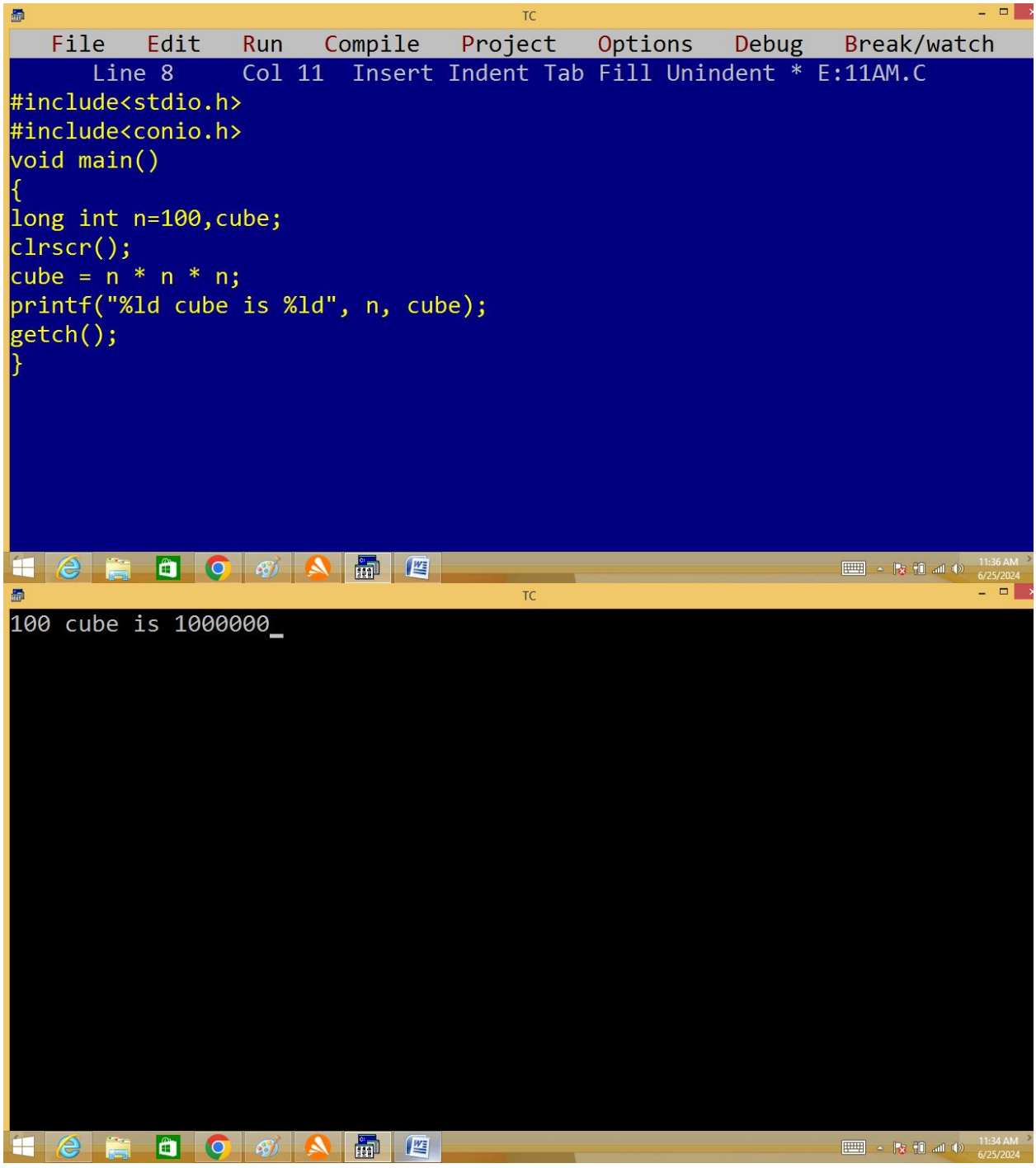
$n^3 = n * n * n$

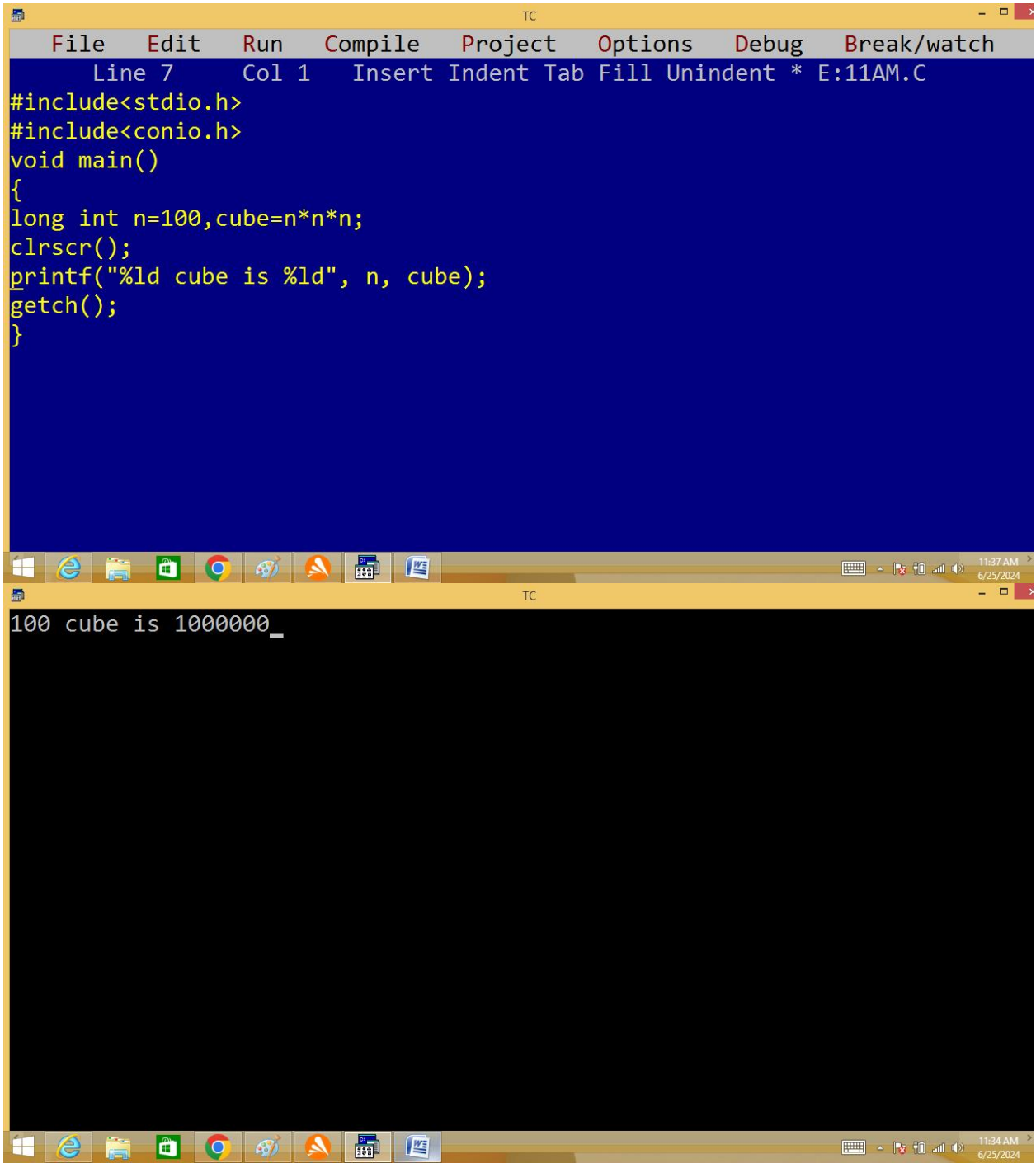


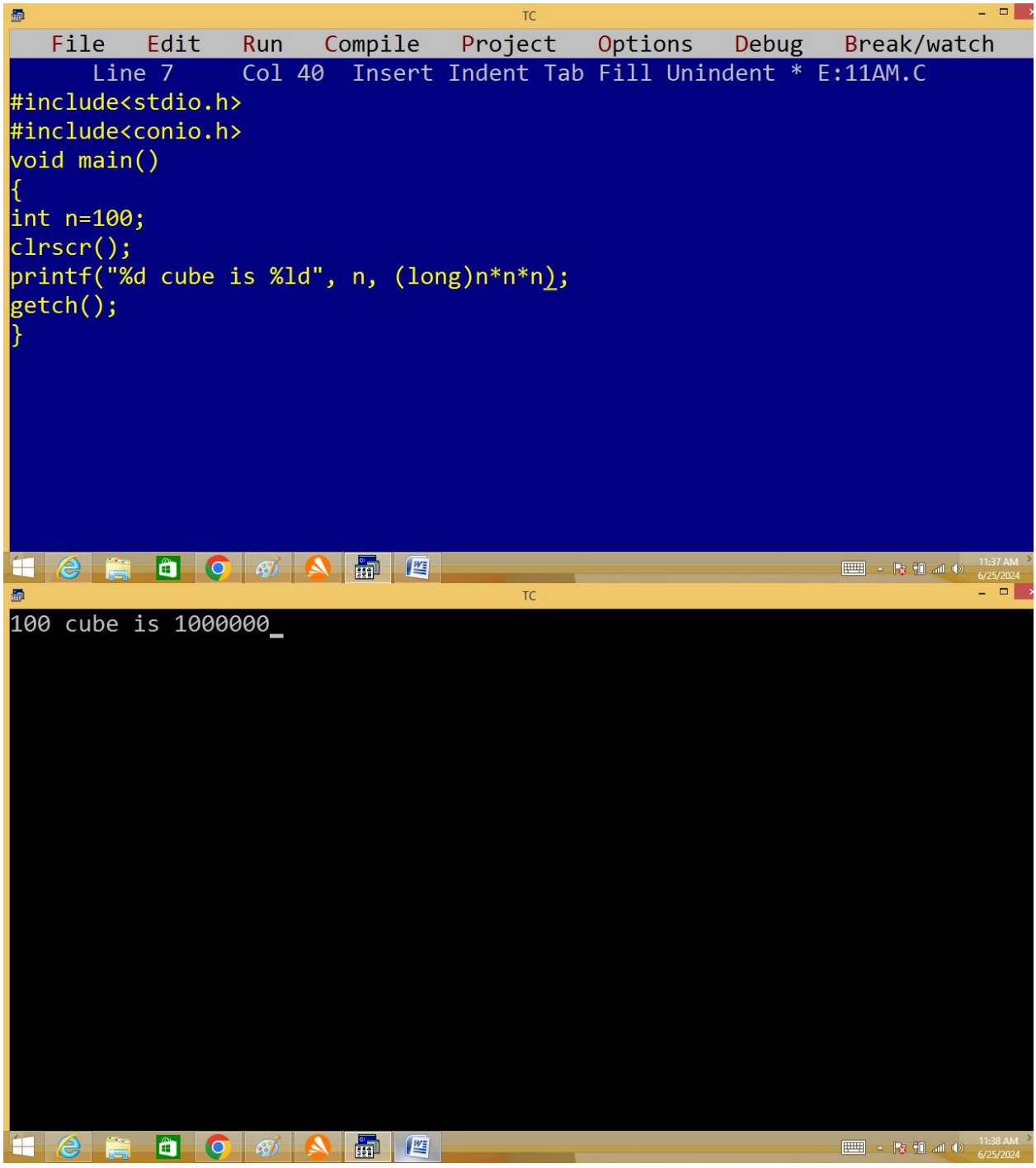

TC
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 10 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n=100,cube;
clrscr();
cube = n * n * n;
printf("%d cube is %d", n, cube);
getch();
}
11:30 AM
6/25/2024
TC
100 cube is 16960
11:31 AM
6/25/2024


TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 22 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n=100;
long int cube;
clrscr();
cube = n * n * n;
printf("%d cube is %ld", n, cube);
getch();
}
11:31 AM
6/25/2024
TC
100 cube is 16960
11:32 AM
6/25/2024


TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 52 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n=100;
long int cube;
clrscr();
cube = (long)n * n * n; /* explicit type casting */_
printf("%d cube is %ld", n, cube);
getch();
}
TC
100 cube is 1000000_

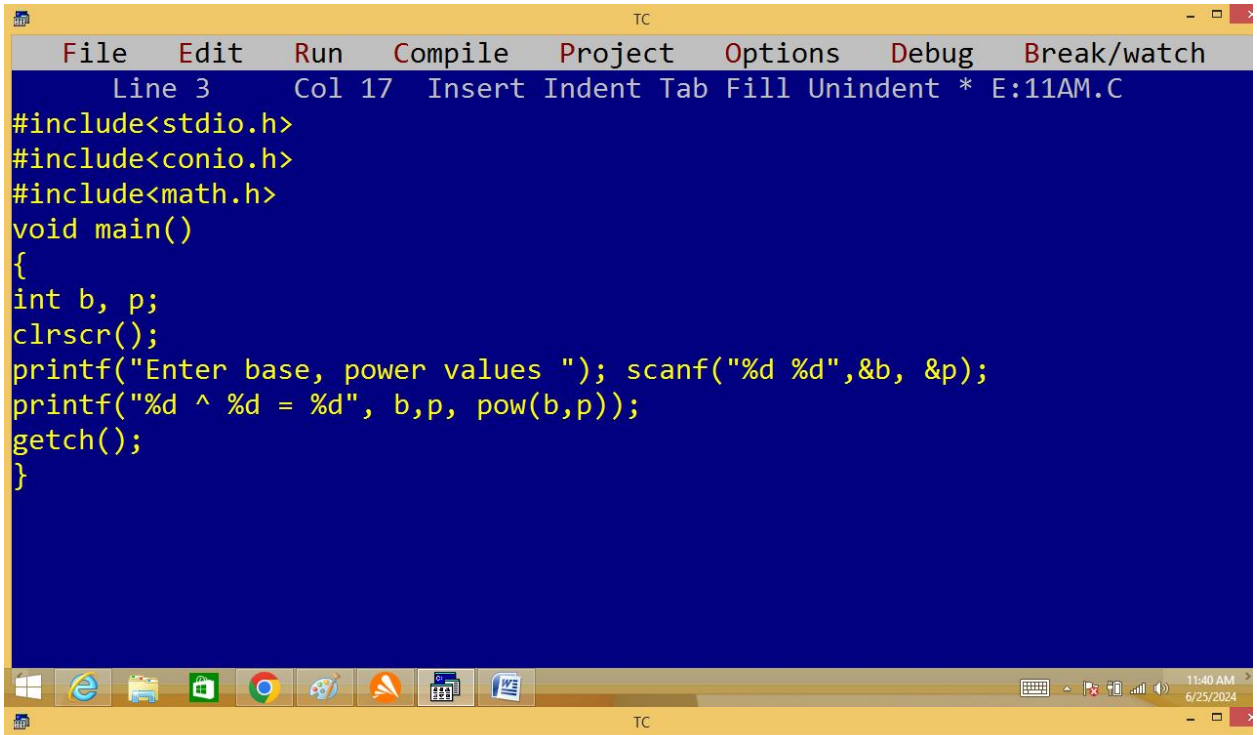

TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 11 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long int n=100,cube;
clrscr();
cube = n * n * n;
printf("%ld cube is %ld", n, cube);
getch();
}
11:36 AM
6/25/2024
TC
100 cube is 1000000
11:34 AM
6/25/2024

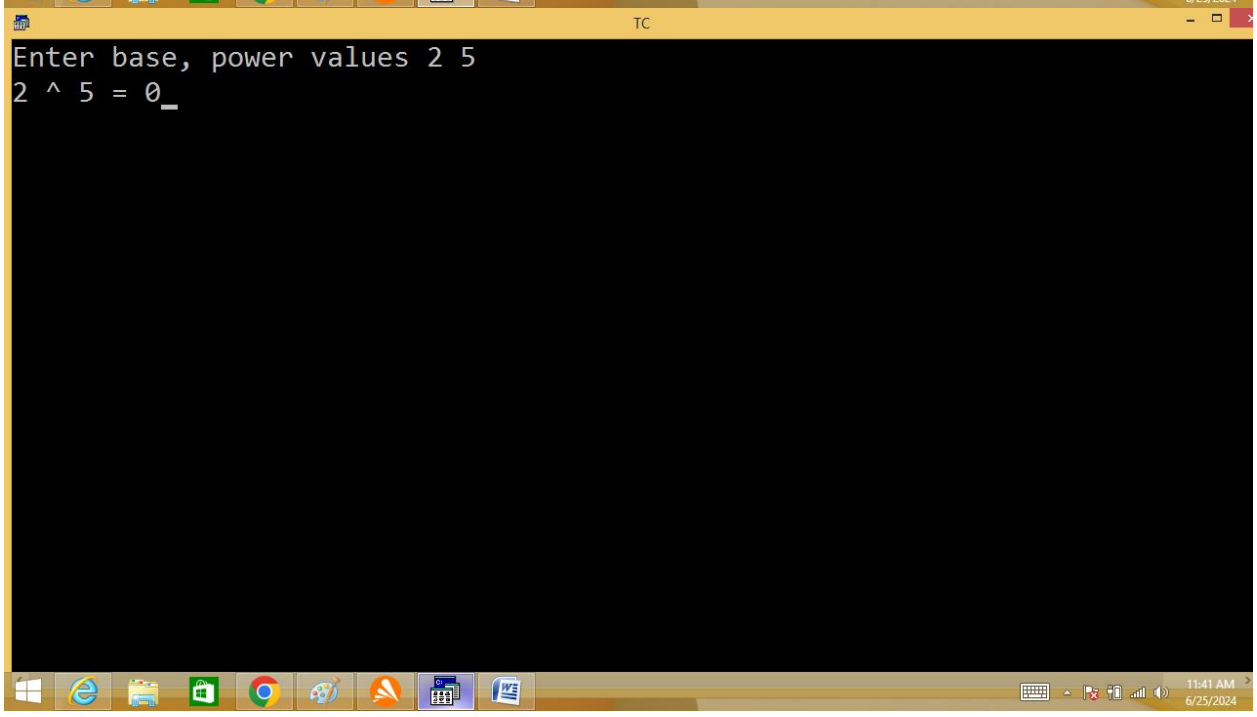

TC
File Edit Run Compile Project Options Debug Break/watch
Line 7 Col 1 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long int n=100,cube=n*n*n;
clrscr();
printf("%ld cube is %ld", n, cube);
getch();
}
TC
100 cube is 1000000

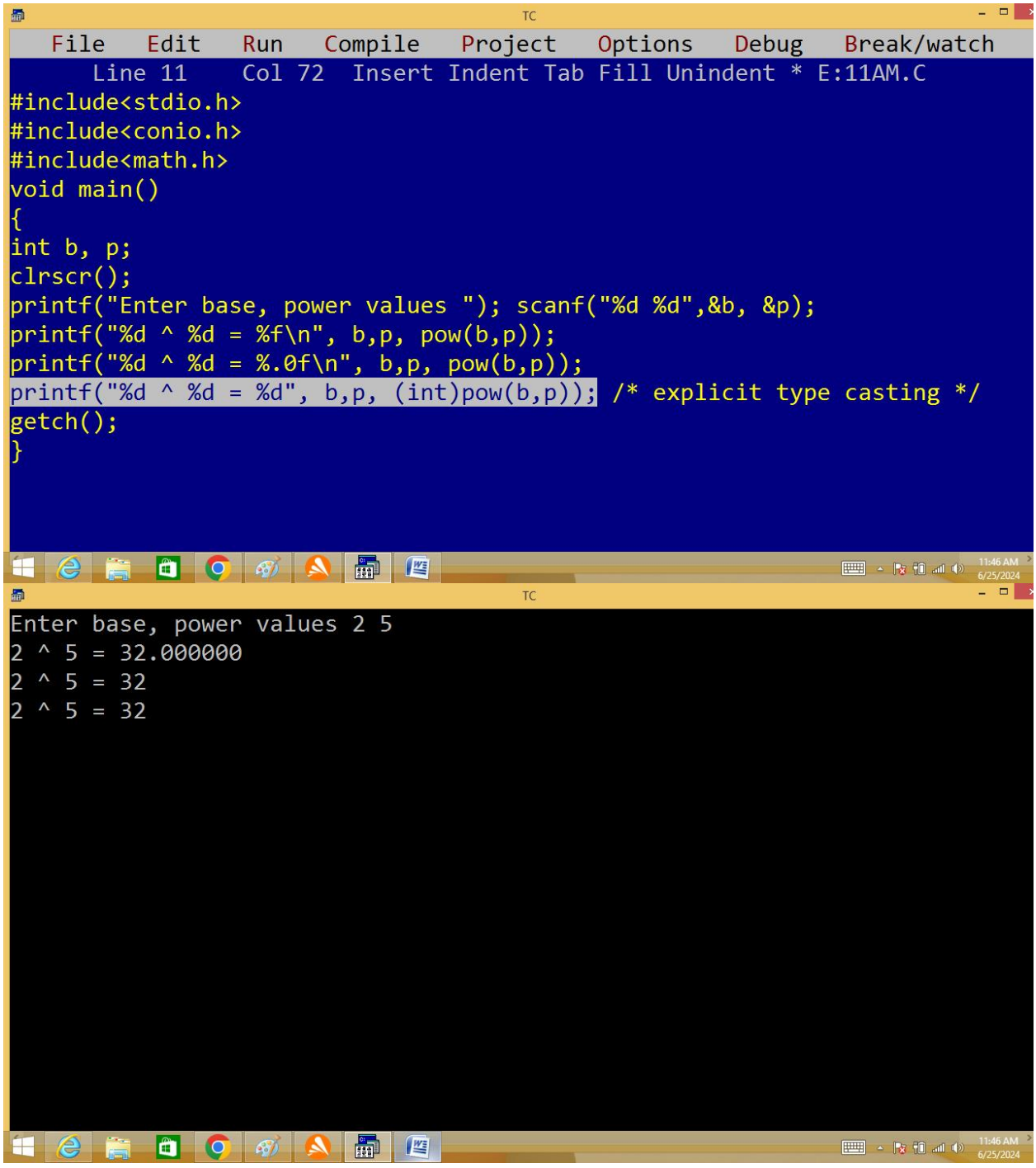

TC
File Edit Run Compile Project Options Debug Break/watch
Line 7 Col 40 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n=100;
clrscr();
printf("%d cube is %ld", n, (long)n*n*n);
getch();
}
TC
100 cube is 1000000

Finding power value:

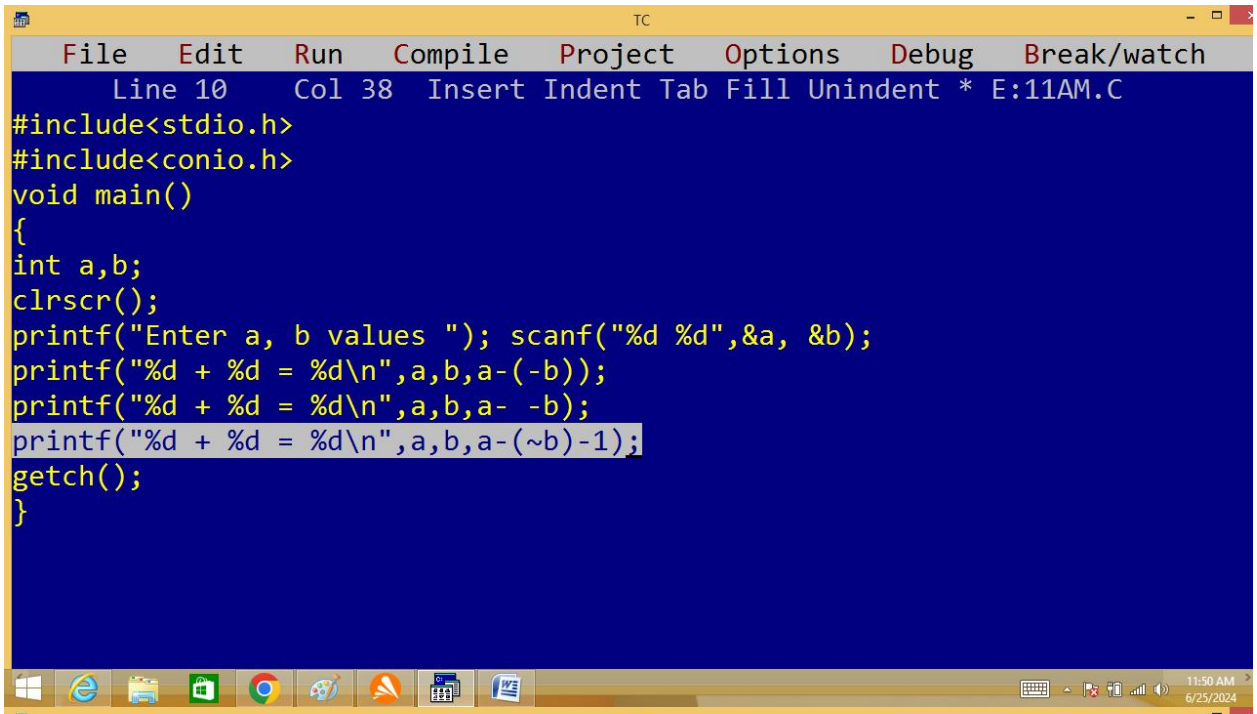
$2^5 = 32$

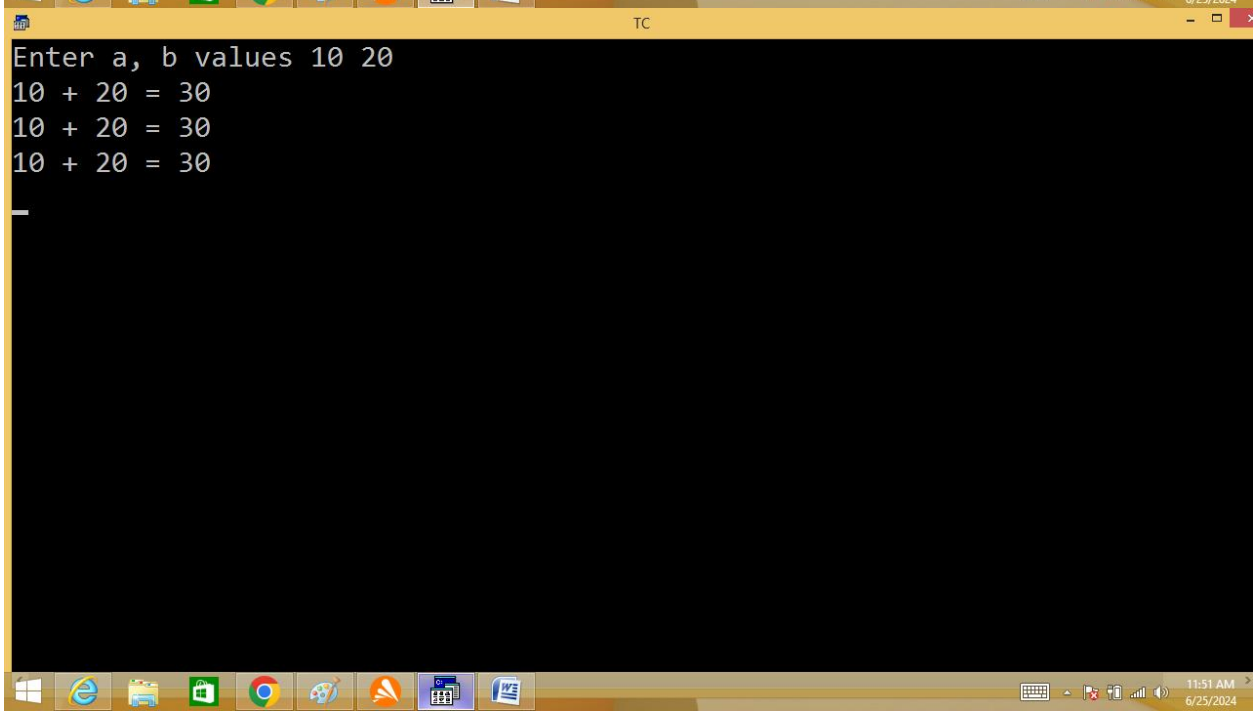





TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 72 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
int b, p;
clrscr();
printf("Enter base, power values "); scanf("%d %d",&b, &p);
printf("%d ^ %d = %f\n", b,p, pow(b,p));
printf("%d ^ %d = %.0f\n", b,p, pow(b,p));
printf("%d ^ %d = %d", b,p, (int)pow(b,p)); /* explicit type casting */
getch();
}
TC
Enter base, power values 2 5
2 ^ 5 = 32.000000
2 ^ 5 = 32
2 ^ 5 = 32

Add two numbers without using +:





a-(~b)-1

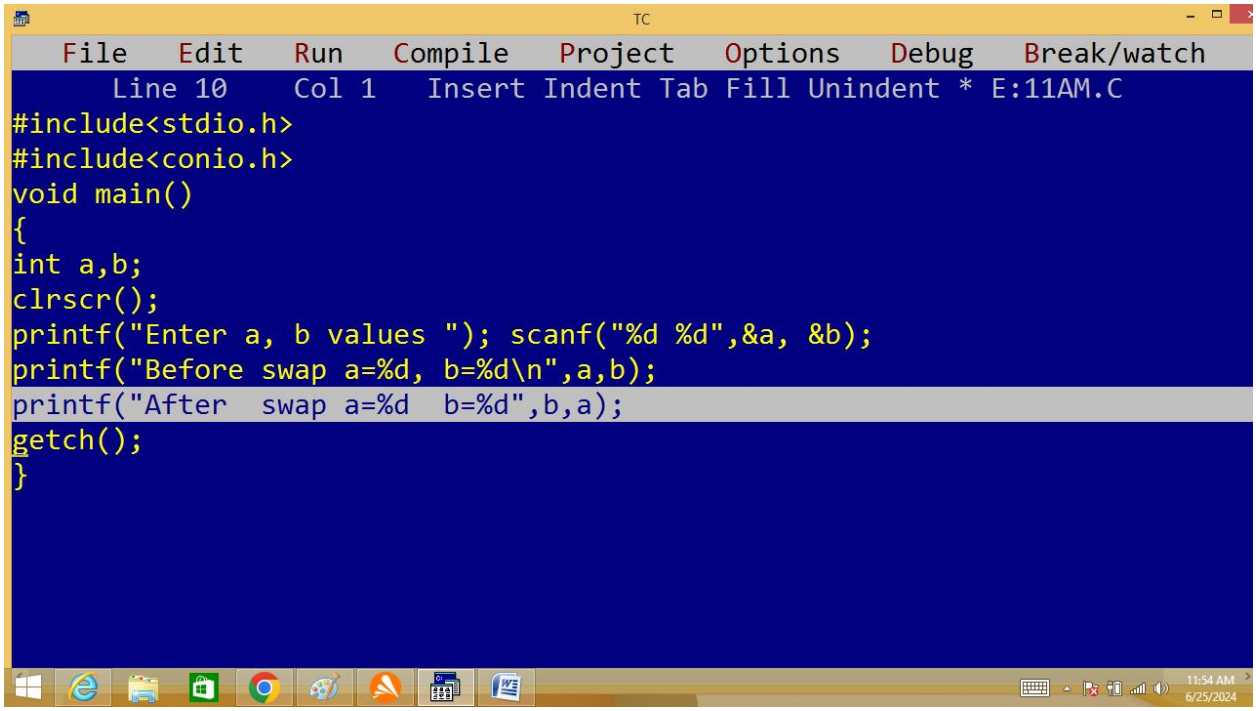
10-(~20)-1

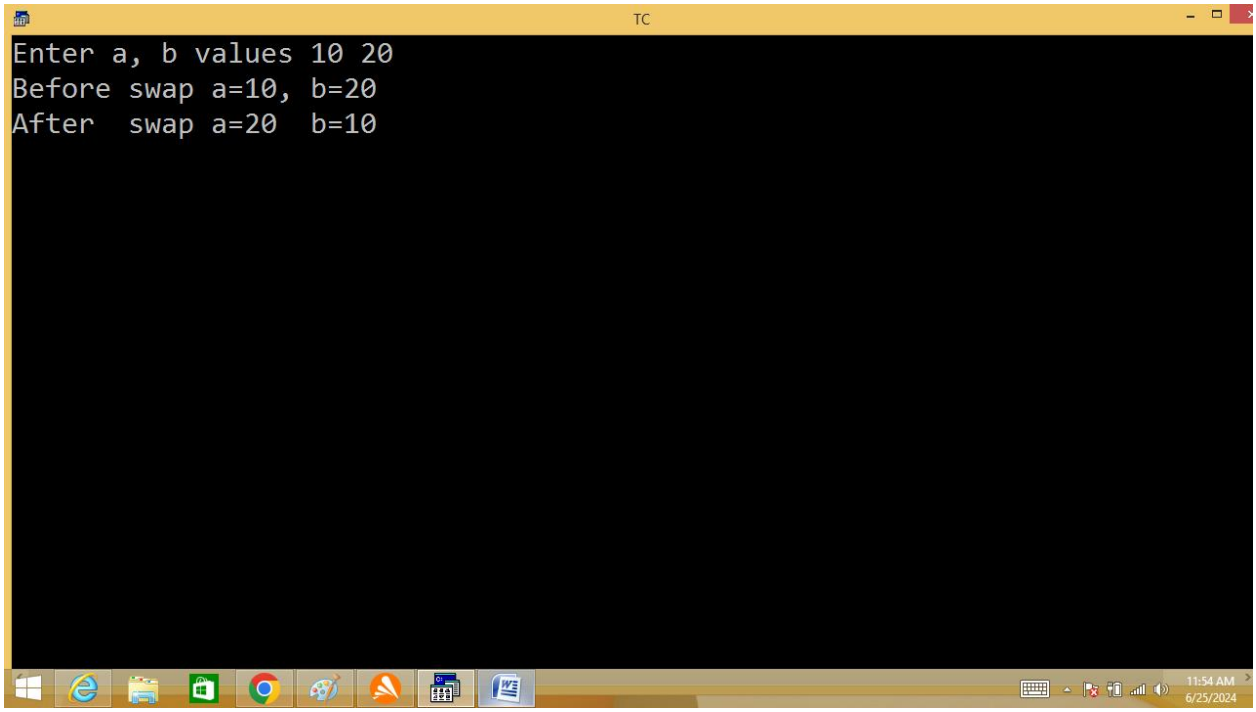
10-(-21)-1

10+21-1

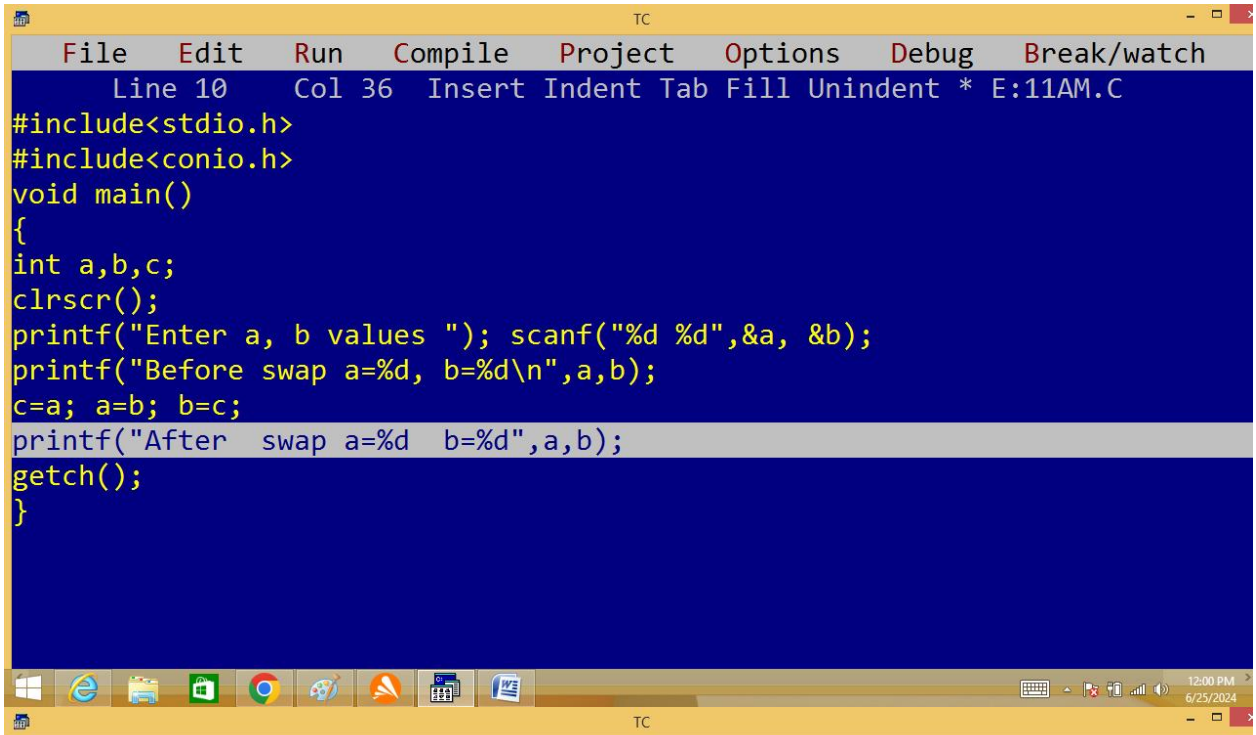
31-1=30

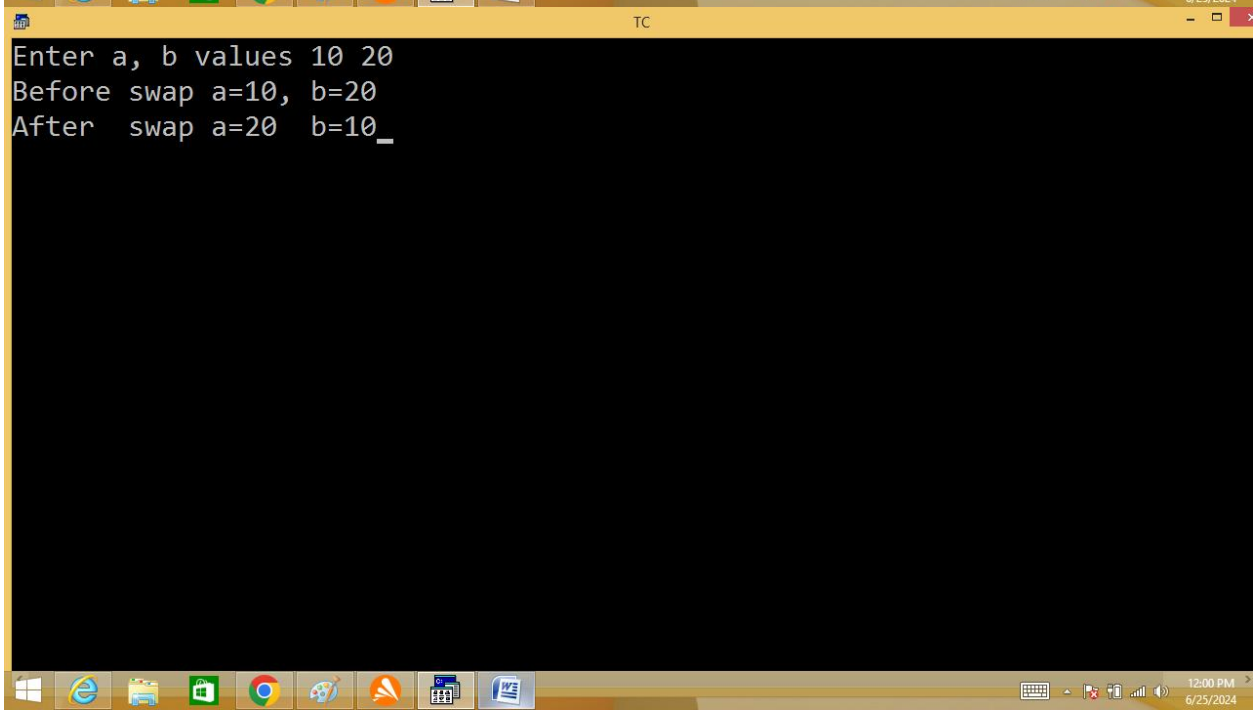
Swap two numbers without using operators:

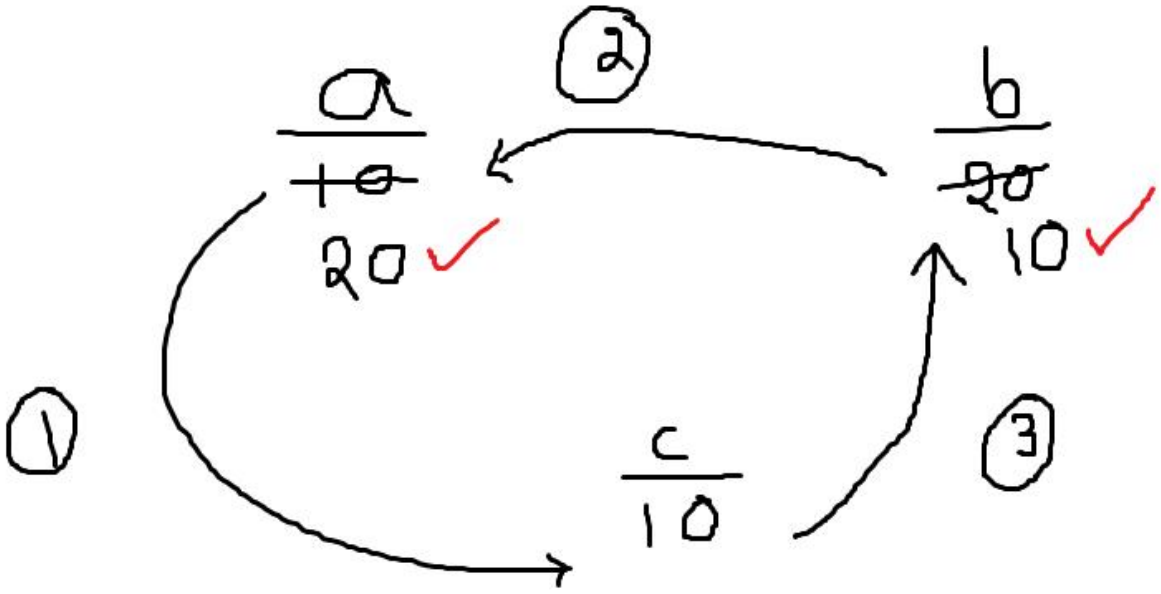




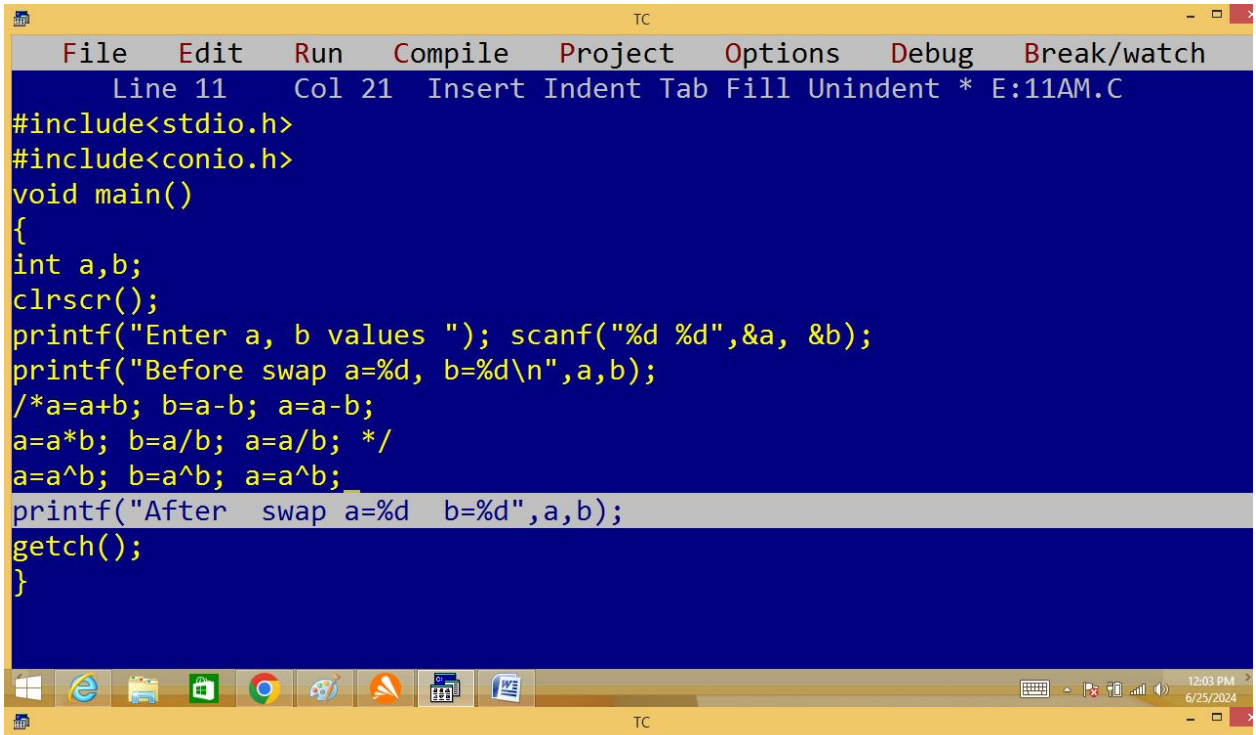
Using 3rd variable:

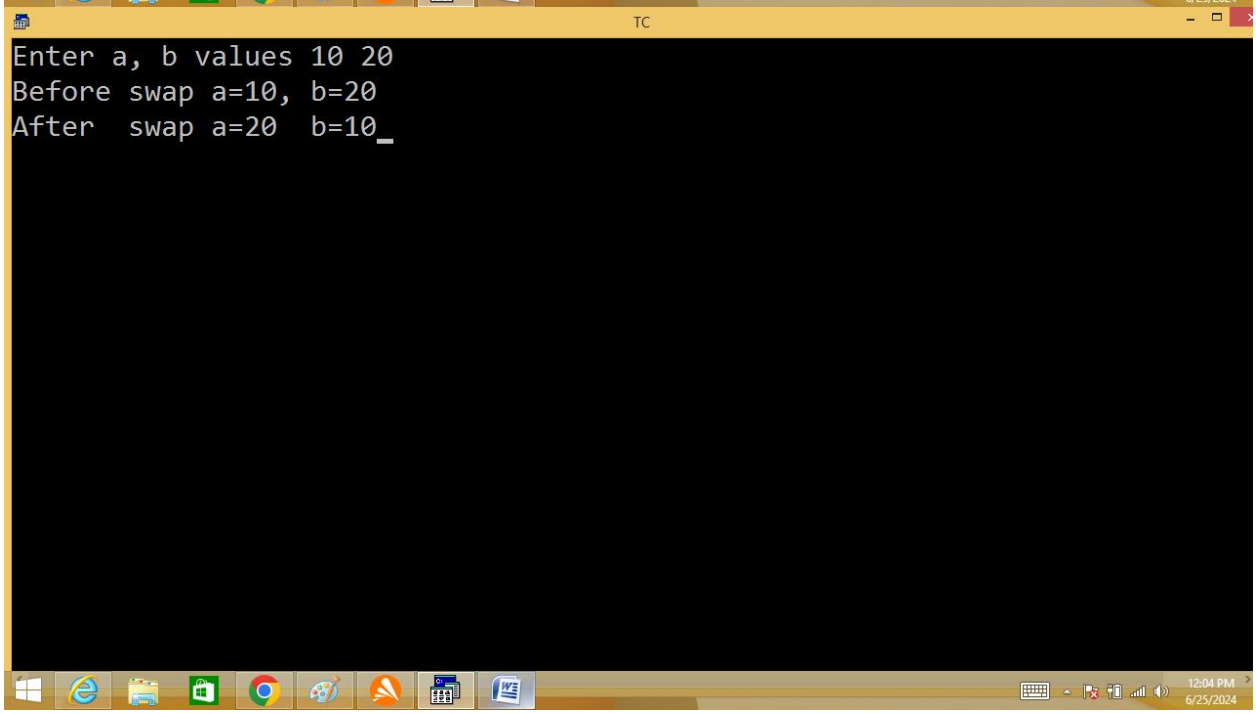

TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 36 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b,c;
clrscr();
printf("Enter a, b values "); scanf("%d %d",&a, &b);
printf("Before swap a=%d, b=%d\n",a,b);
c=a; a=b; b=c;
printf("After swap a=%d b=%d",a,b);
getch();
}


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



Without using 3rd variable:


TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 21 Insert Indent Tab Fill Unindent * E:11AM.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",a,b);
getch();
}


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

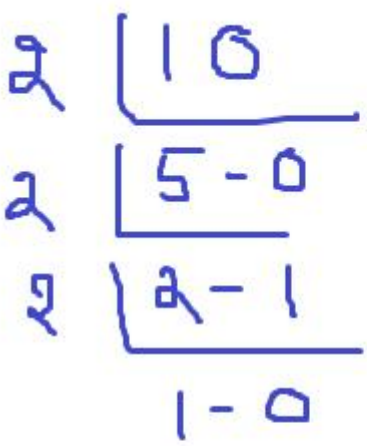
a=10 ==> 200 ==> 20

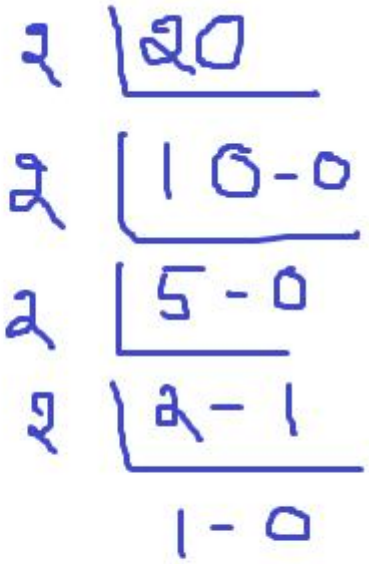
b=20 ==> 10

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

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

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





10 = 1010

20=10100

a=a^b

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

$2^4+2^3+2^2+2^1$

16+8+4+2=30

a=30, b=20

b=a^b

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

a=30, b=10

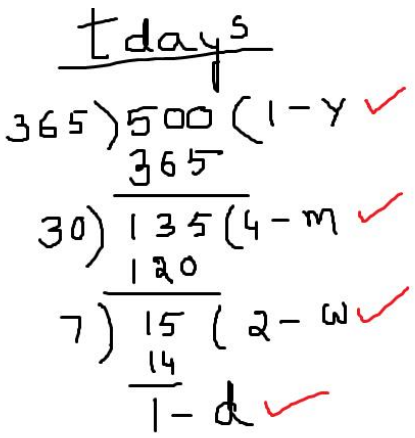
a=a^b

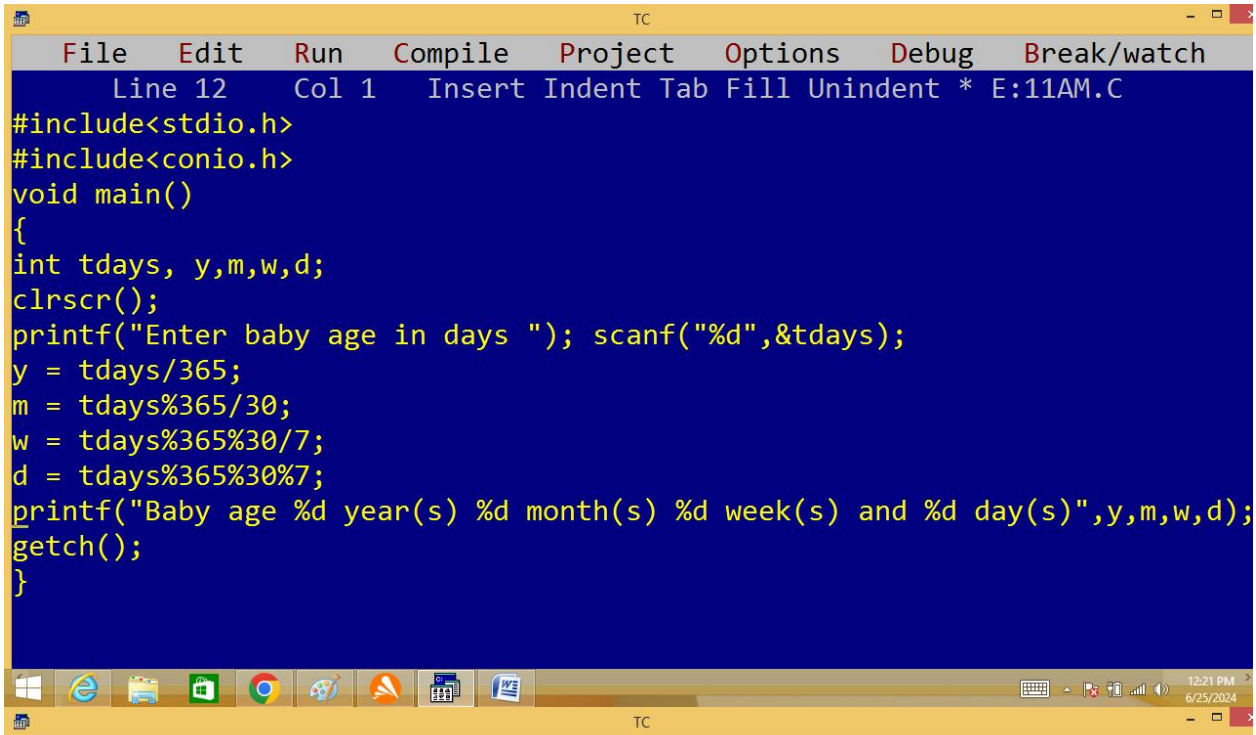
a=30=11110
b=10=01010
10100=20

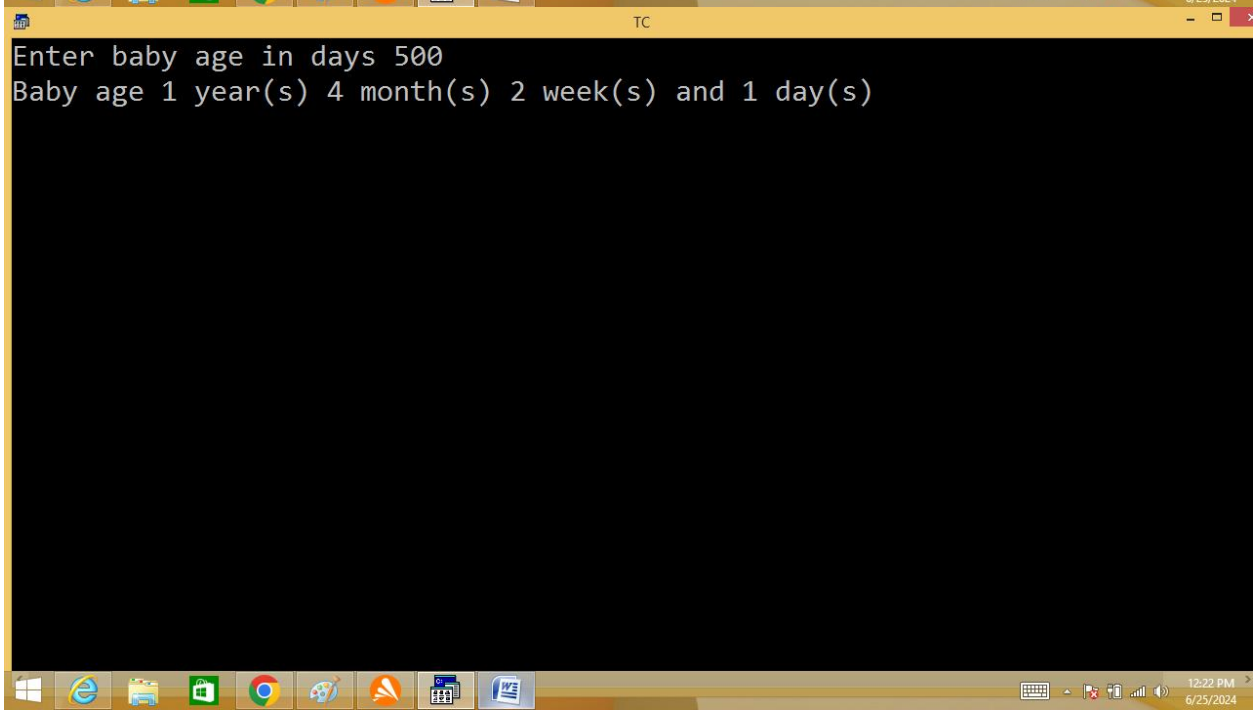
a=20, b=10 ✓

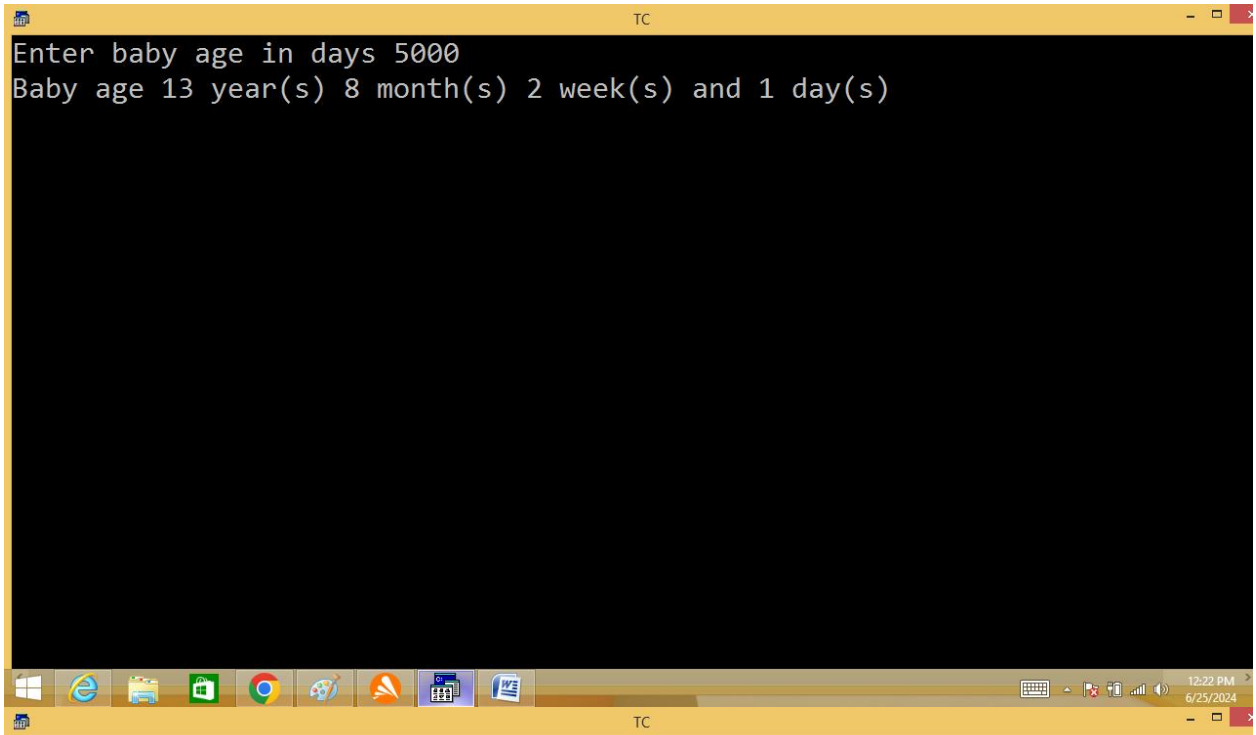
Read a baby age in no of days and find the baby age in years, months, weeks and days.

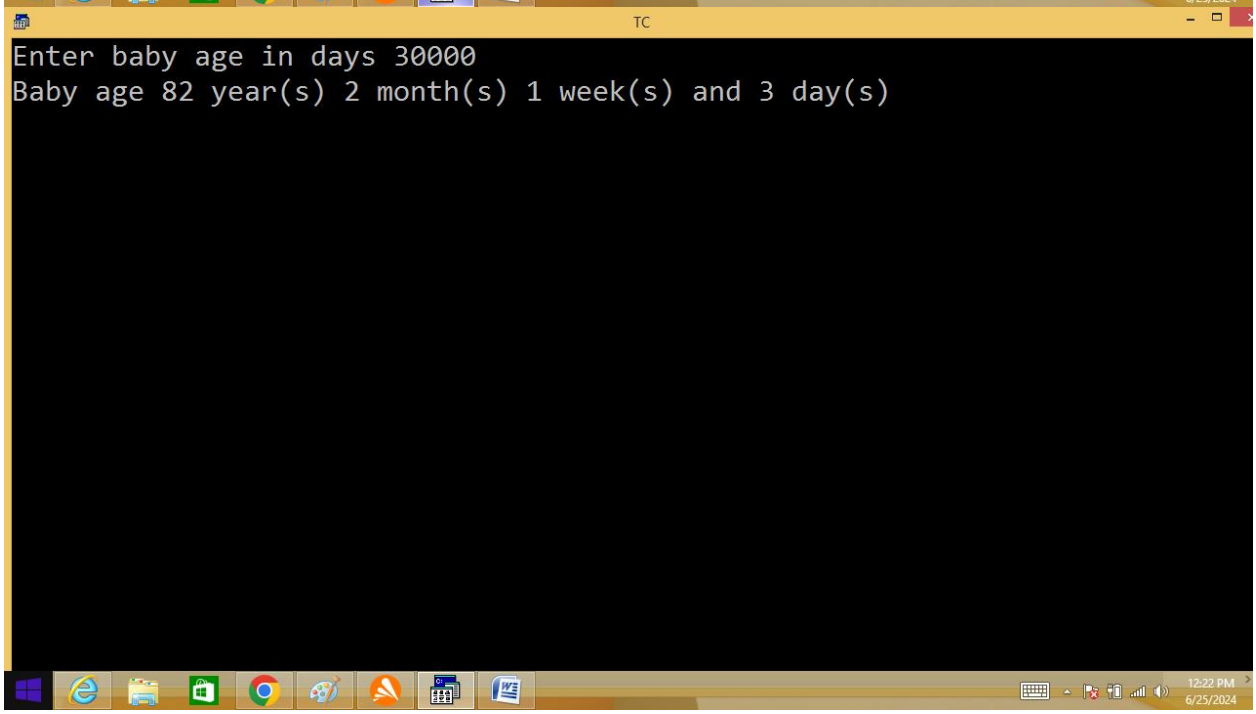
y = 500/365=1
m= 500%365=135/30=4
w= 500%365=135%30=15/7=2
d= 500%365=135%30=15%7=1

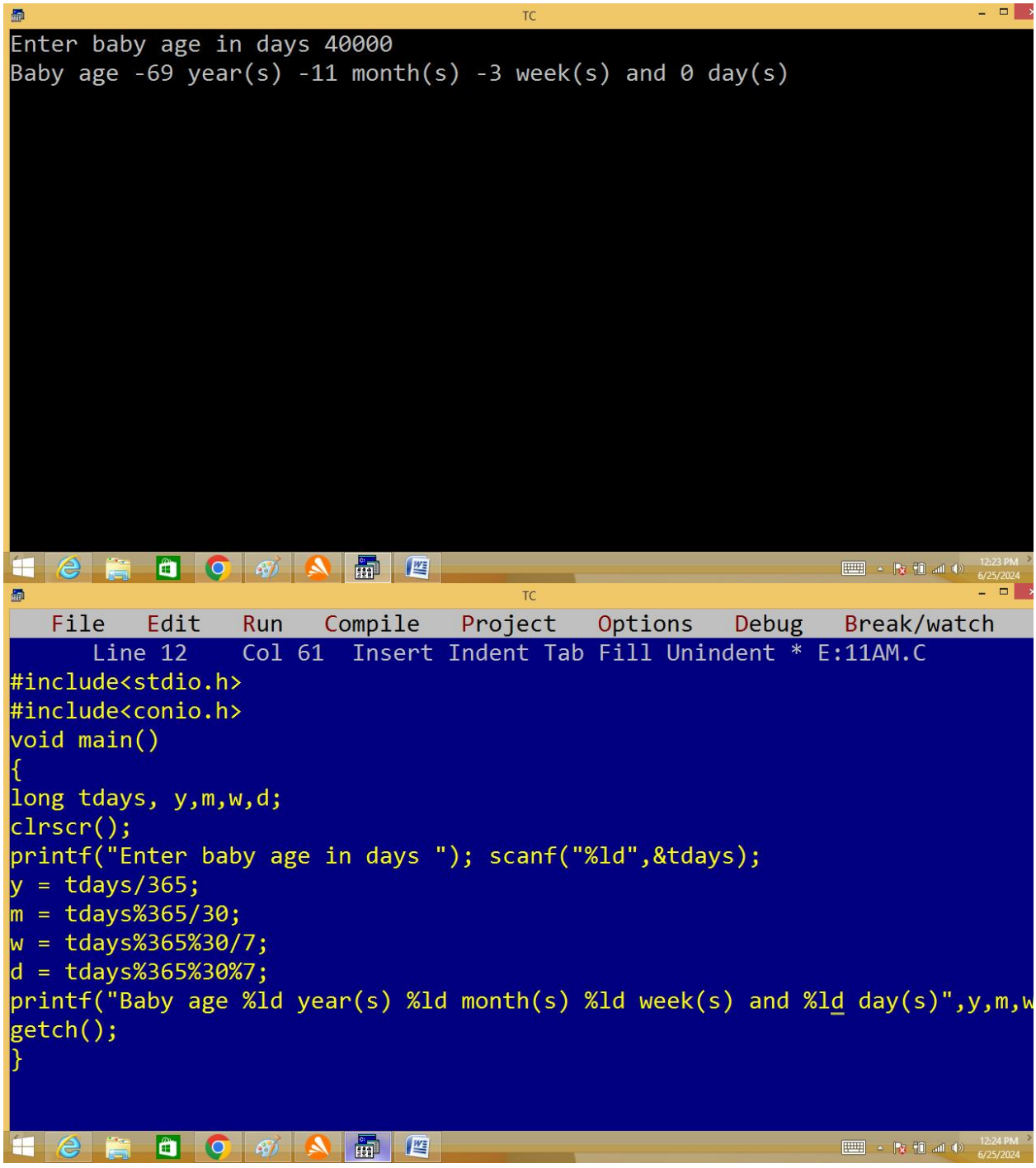


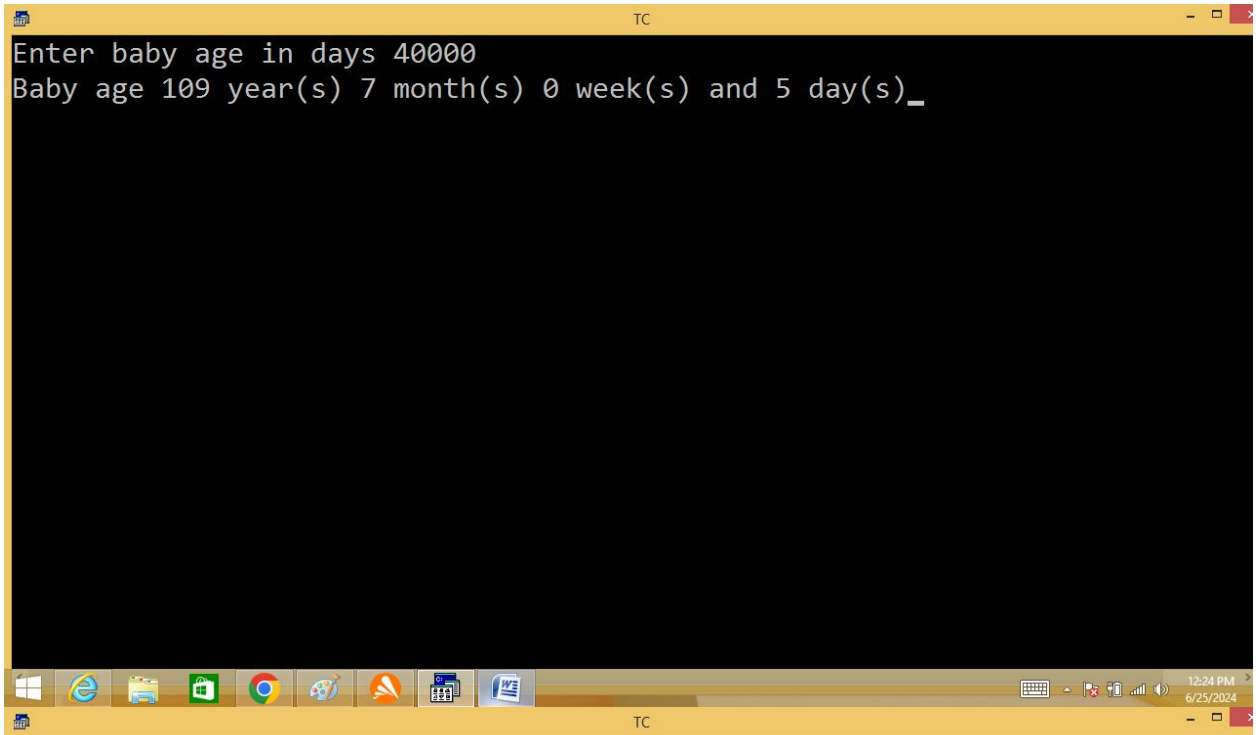

TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 1 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int tdays, y,m,w,d;
clrscr();
printf("Enter baby age in days "); scanf("%d",&tdays);
y = tdays/365;
m = tdays%365/30;
w = tdays%365%30/7;
d = tdays%365%30%7;
printf("Baby age %d year(s) %d month(s) %d week(s) and %d day(s)",y,m,w,d);
getch();
}

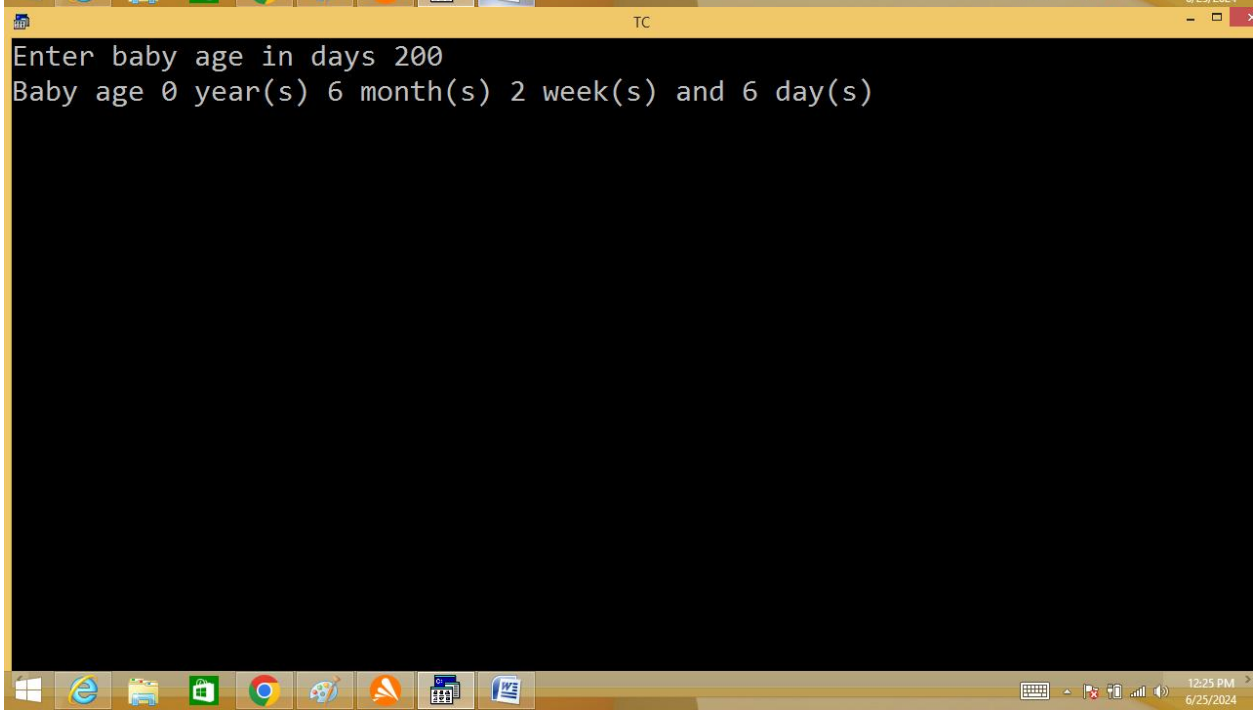

TC
Enter baby age in days 500
Baby age 1 year(s) 4 month(s) 2 week(s) and 1 day(s)

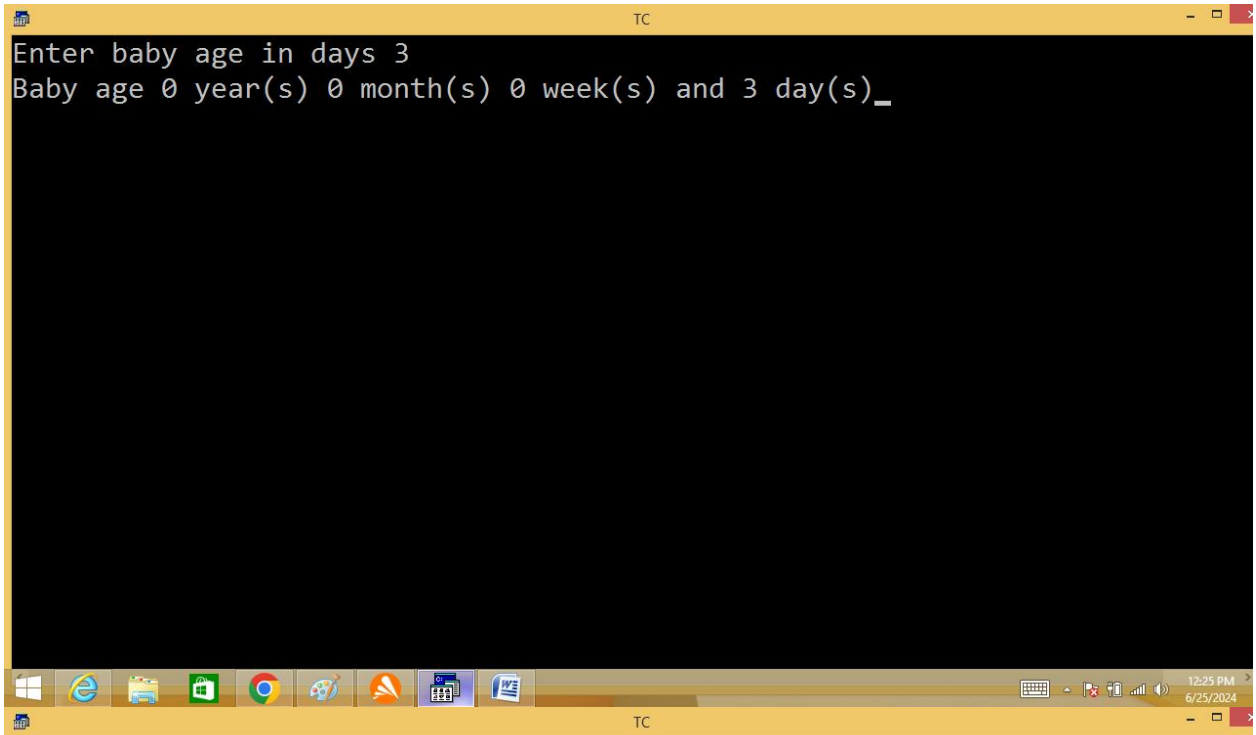

TC
Enter baby age in days 5000
Baby age 13 year(s) 8 month(s) 2 week(s) and 1 day(s)
12:22 PM
6/25/2024

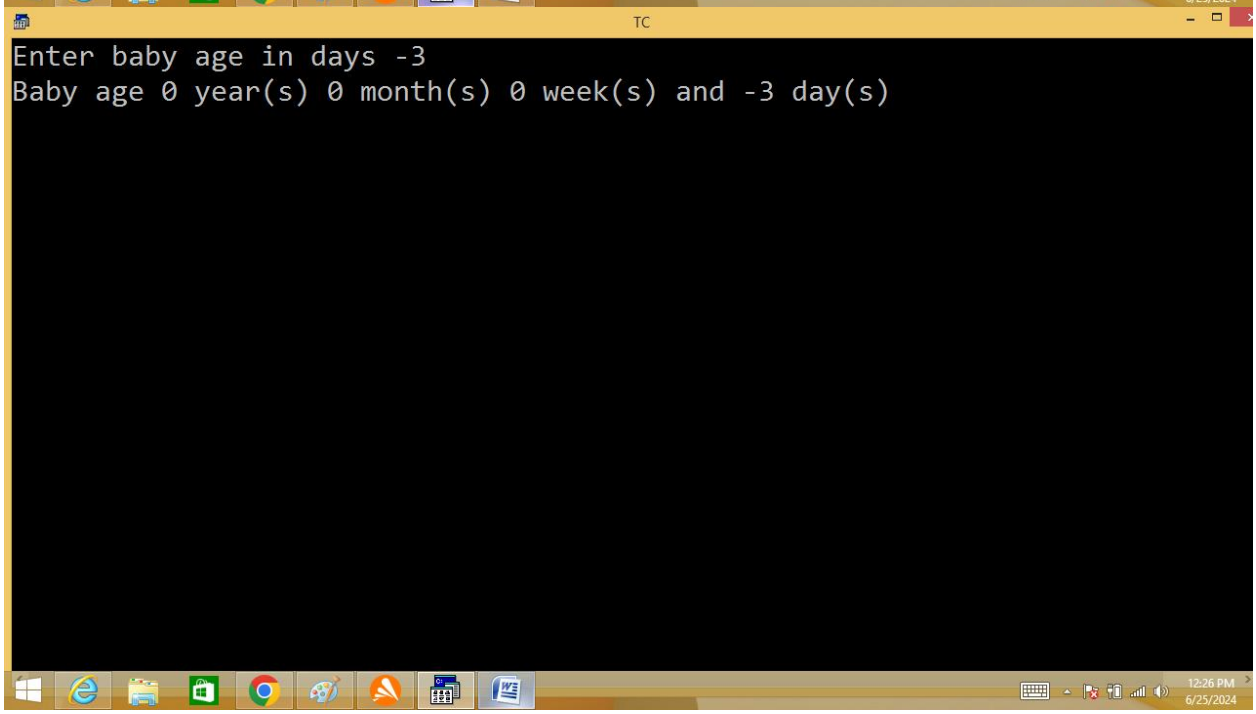

TC
Enter baby age in days 30000
Baby age 82 year(s) 2 month(s) 1 week(s) and 3 day(s)
12:22 PM
6/25/2024


TC
Enter baby age in days 40000
Baby age -69 year(s) -11 month(s) -3 week(s) and 0 day(s)
TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 61 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long tdays, y,m,w,d;
clrscr();
printf("Enter baby age in days "); scanf("%ld",&tdays);
y = tdays/365;
m = tdays%365/30;
w = tdays%365%30/7;
d = tdays%365%30%7;
printf("Baby age %ld year(s) %ld month(s) %ld week(s) and %ld day(s)",y,m,w
getch();
}


TC
Enter baby age in days 40000
Baby age 109 year(s) 7 month(s) 0 week(s) and 5 day(s)
12:24 PM
6/25/2024


TC
Enter baby age in days 200
Baby age 0 year(s) 6 month(s) 2 week(s) and 6 day(s)
12:25 PM
6/25/2024

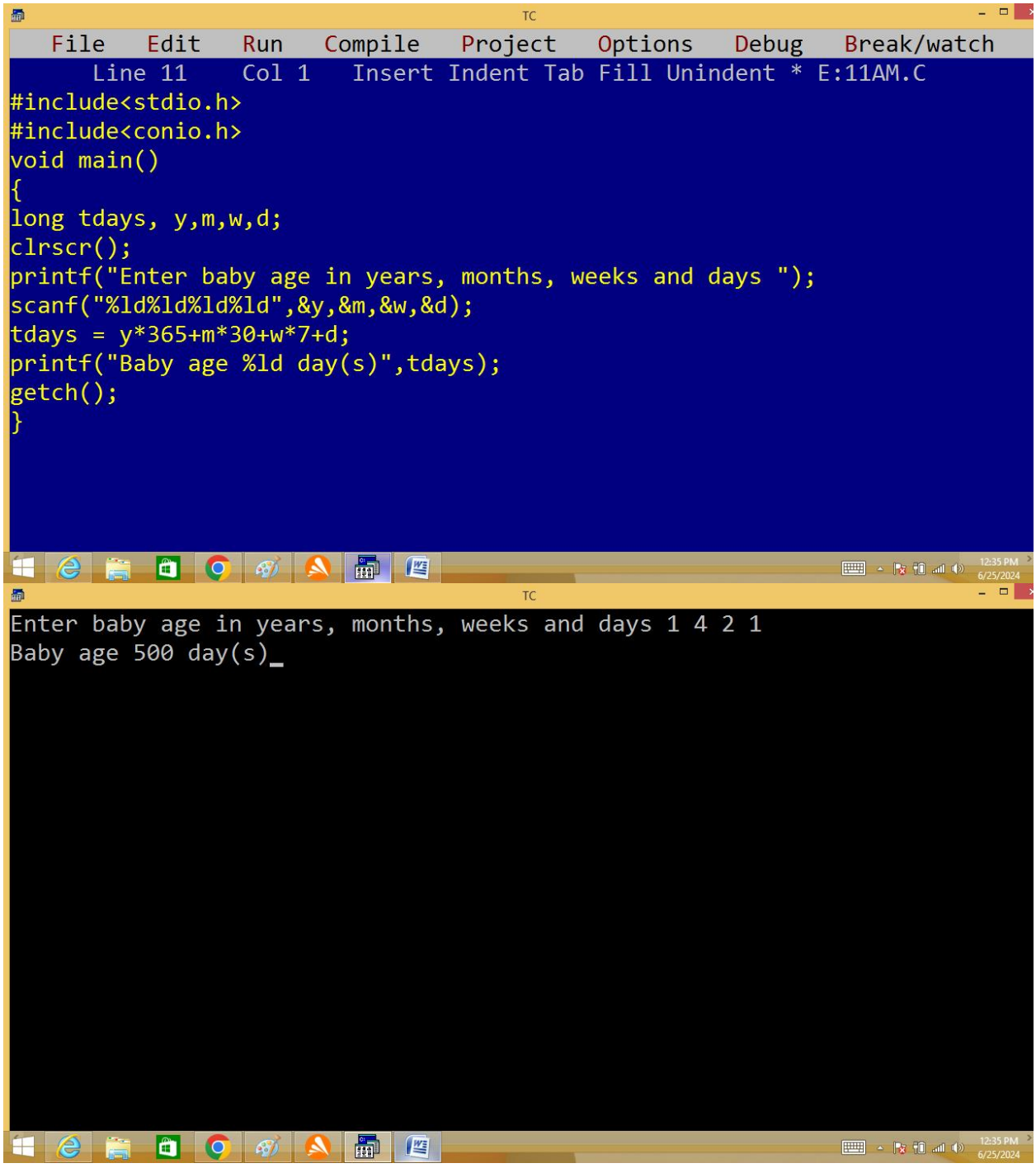

TC
Enter baby age in days 3
Baby age 0 year(s) 0 month(s) 0 week(s) and 3 day(s)
12:25 PM
6/25/2024

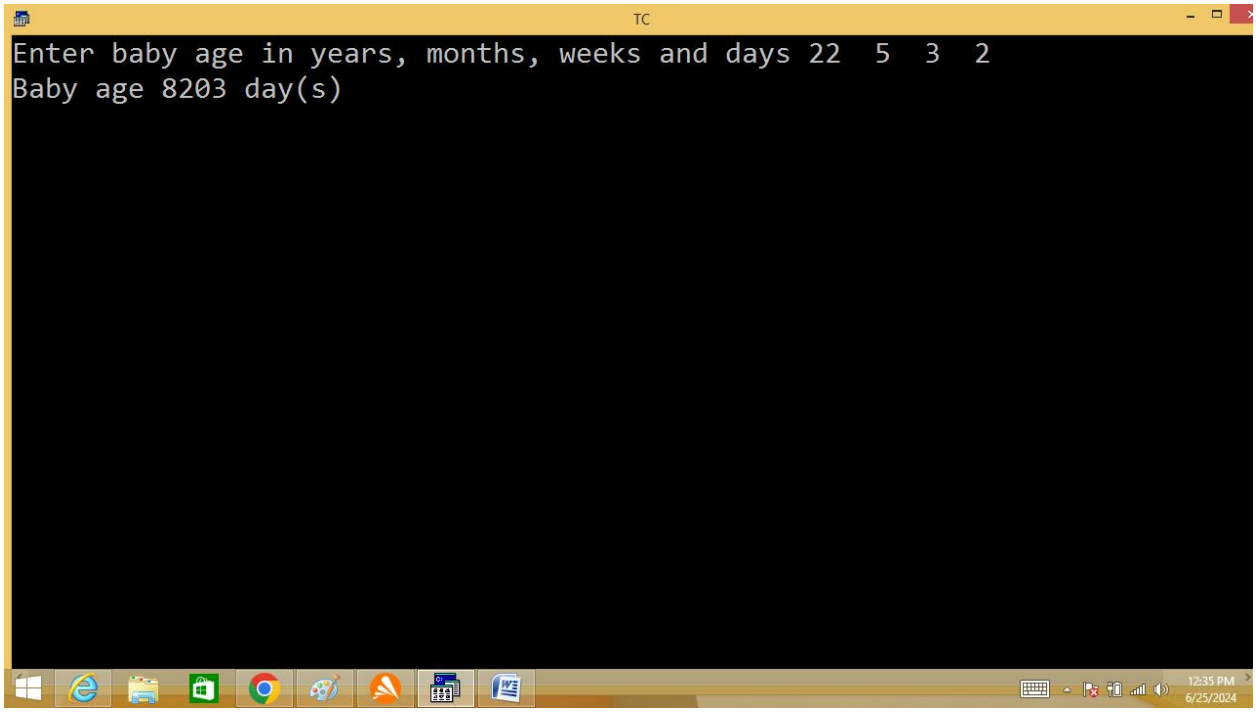

TC
Enter baby age in days -3
Baby age 0 year(s) 0 month(s) 0 week(s) and -3 day(s)
12:26 PM
6/25/2024

Read baby age in years, months, weeks and days. Find baby age in total days.

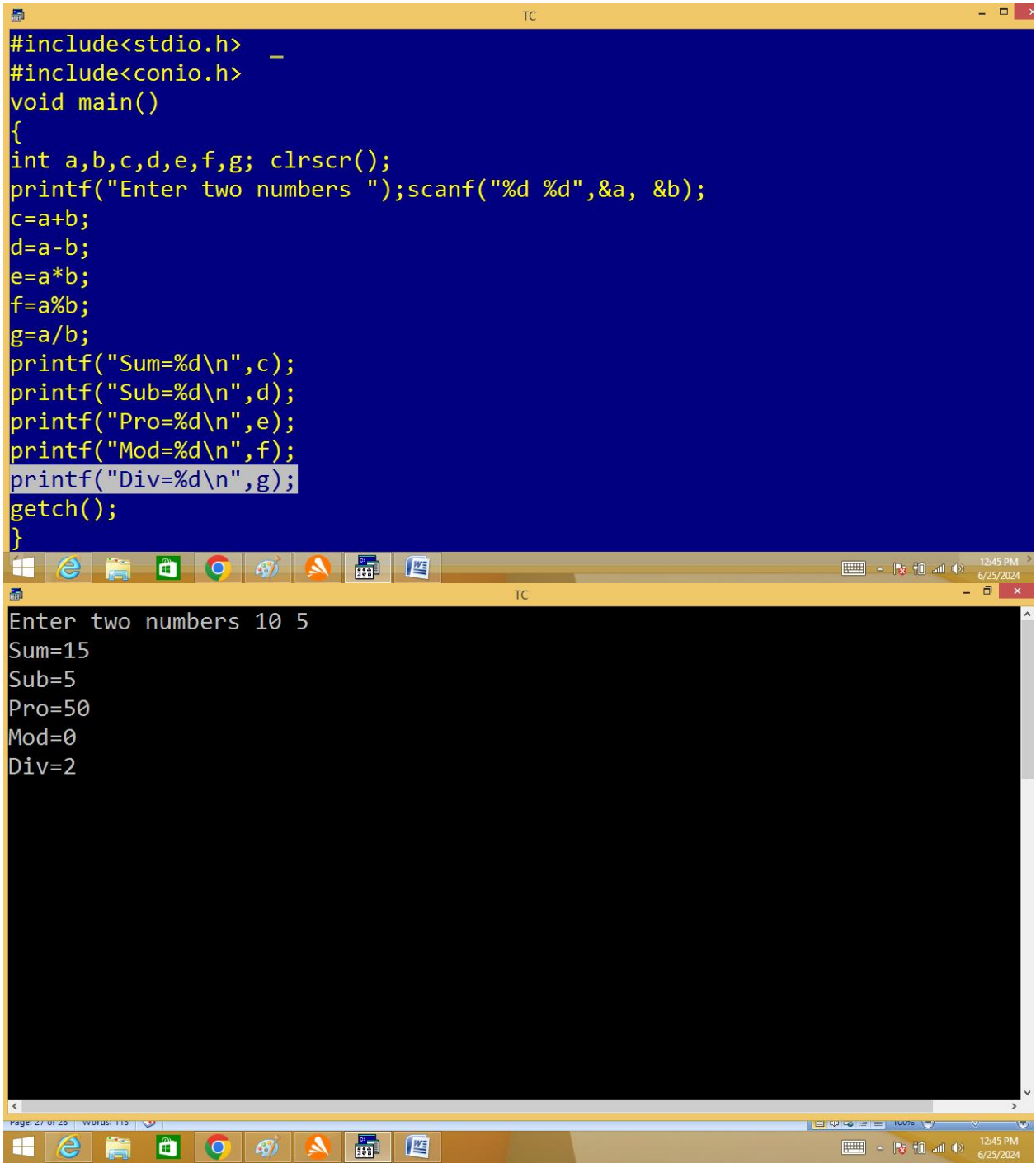
tdays = y*365 + m * 30 + w * 7 + d;

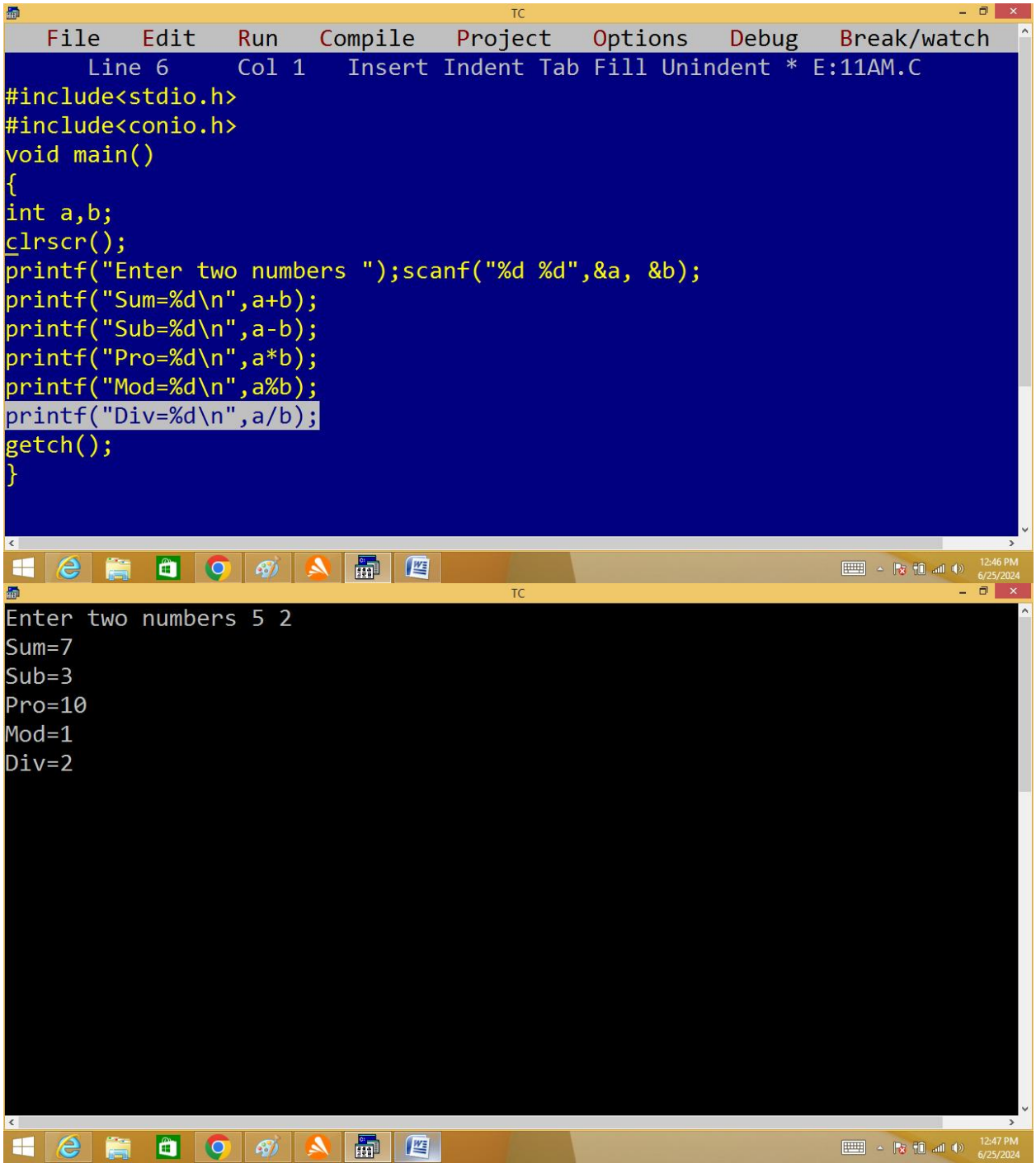
tdays = 1 * 365 + 4 * 30 + 2 * 7 + 1 = 500

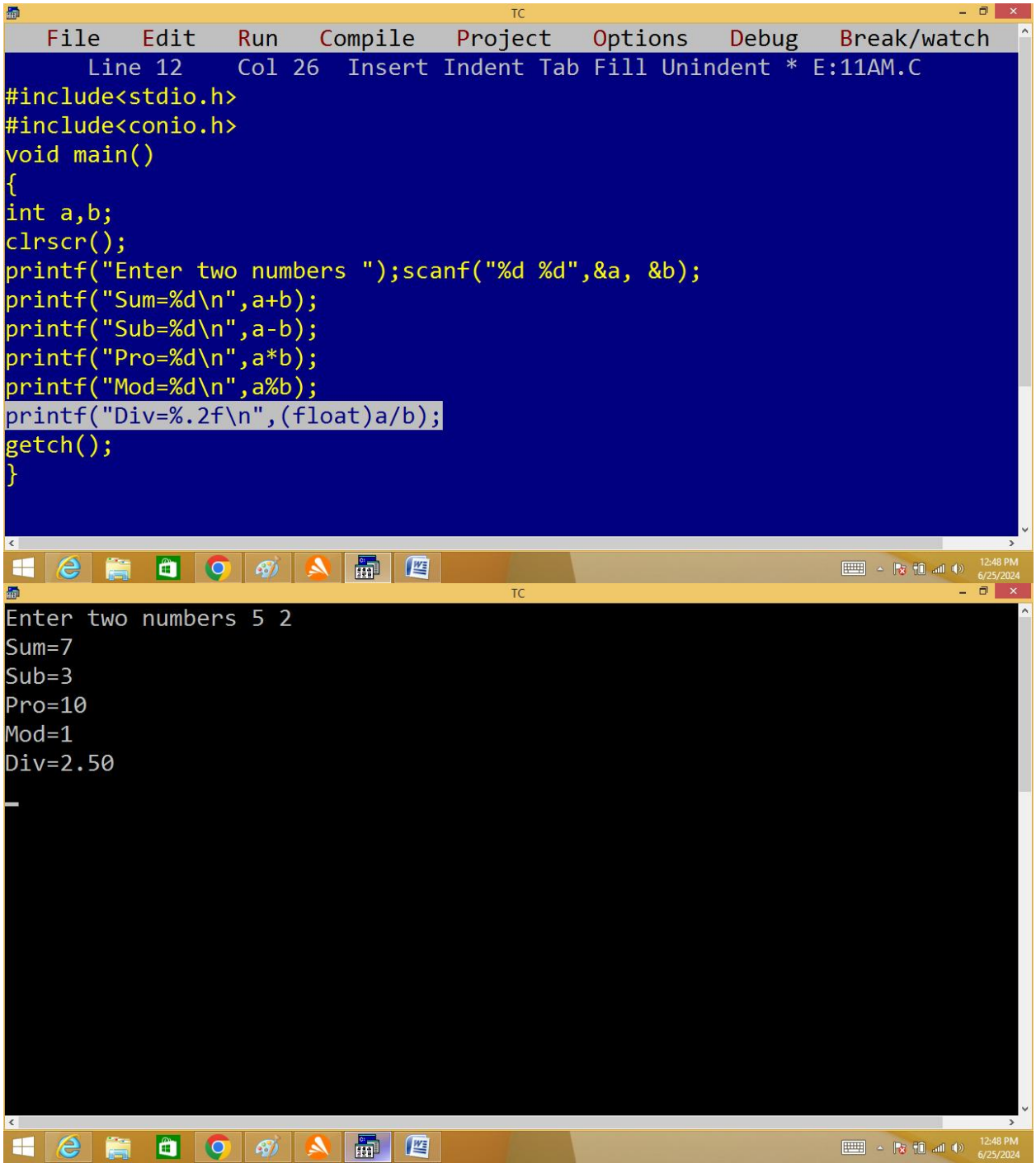

TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 1 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long tdays, y,m,w,d;
clrscr();
printf("Enter baby age in years, months, weeks and days ");
scanf("%ld%ld%ld%ld",&y,&m,&w,&d);
tdays = y*365+m*30+w*7+d;
printf("Baby age %ld day(s)",tdays);
getch();
}
TC
Enter baby age in years, months, weeks and days 1 4 2 1
Baby age 500 day(s)

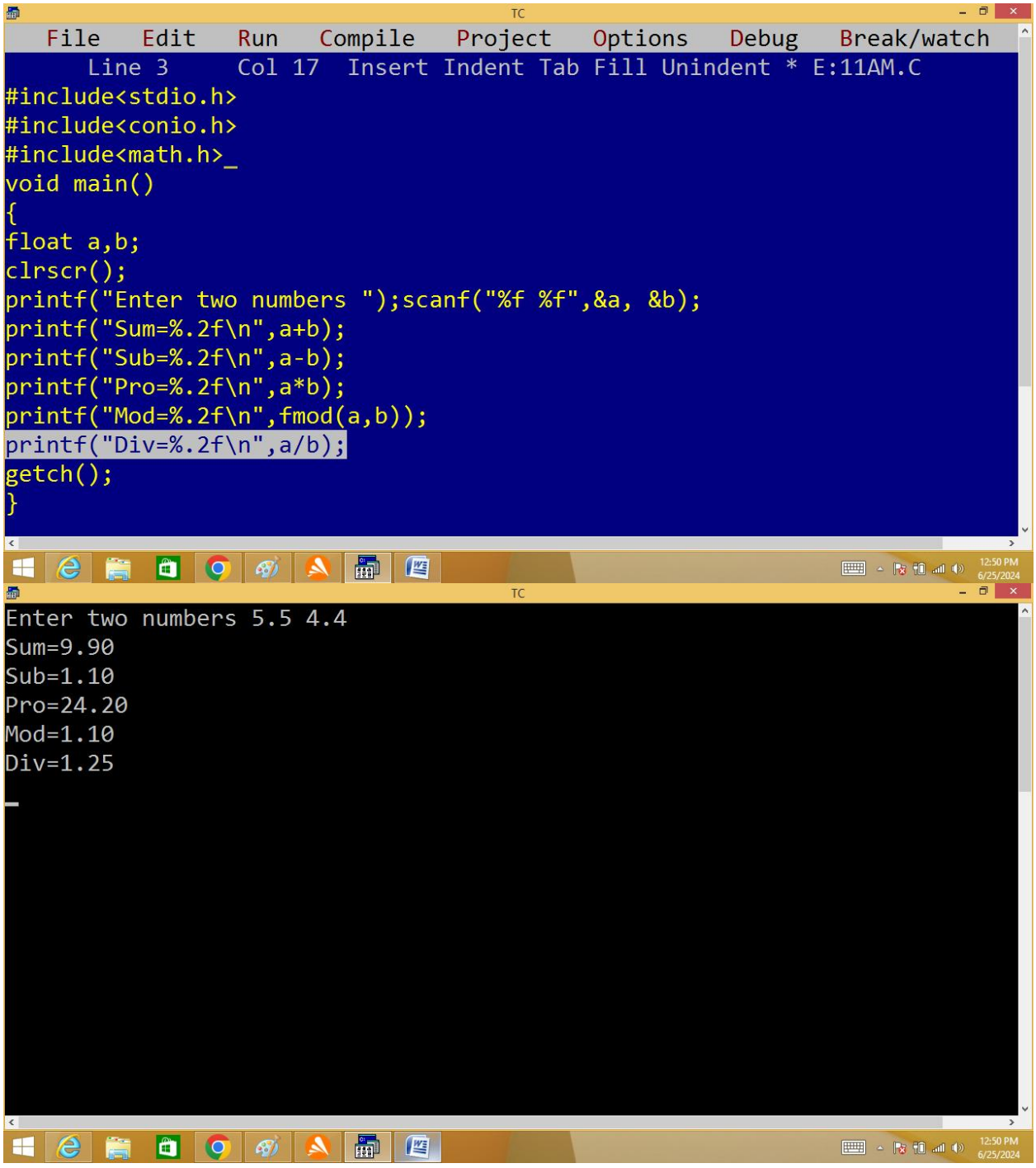


Read two numbers and perform all arithmetic operations [+, -, *, %, /]:


TC
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b,c,d,e,f,g; clrscr();
printf("Enter two numbers ");scanf("%d %d",&a, &b);
c=a+b;
d=a-b;
e=a*b;
f=a%b;
g=a/b;
printf("Sum=%d\n",c);
printf("Sub=%d\n",d);
printf("Pro=%d\n",e);
printf("Mod=%d\n",f);
printf("Div=%d\n",g);
getch();
}
TC
Enter two numbers 10 5
Sum=15
Sub=5
Pro=50
Mod=0
Div=2


TC
File Edit Run Compile Project Options Debug Break/watch
Line 6 Col 1 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter two numbers ");scanf("%d %d",&a, &b);
printf("Sum=%d\n",a+b);
printf("Sub=%d\n",a-b);
printf("Pro=%d\n",a*b);
printf("Mod=%d\n",a%b);
printf("Div=%d\n",a/b);
getch();
}
12:46 PM
6/25/2024
TC
Enter two numbers 5 2
Sum=7
Sub=3
Pro=10
Mod=1
Div=2
12:47 PM
6/25/2024


TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 26 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter two numbers ");scanf("%d %d",&a, &b);
printf("Sum=%d\n",a+b);
printf("Sub=%d\n",a-b);
printf("Pro=%d\n",a*b);
printf("Mod=%d\n",a%b);
printf("Div=%.2f\n",(float)a/b);
getch();
}
TC
Enter two numbers 5 2
Sum=7
Sub=3
Pro=10
Mod=1
Div=2.50


TC
File Edit Run Compile Project Options Debug Break/watch
Line 3 Col 17 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
float a,b;
clrscr();
printf("Enter two numbers ");scanf("%f %f",&a, &b);
printf("Sum=%.2f\n",a+b);
printf("Sub=%.2f\n",a-b);
printf("Pro=%.2f\n",a*b);
printf("Mod=%.2f\n",fmod(a,b));
printf("Div=%.2f\n",a/b);
getch();
}
12:50 PM
6/25/2024
TC
Enter two numbers 5.5 4.4
Sum=9.90
Sub=1.10
Pro=24.20
Mod=1.10
Div=1.25
12:50 PM
6/25/2024

1. Celsius to Fahrenheit conversion

$37^0c = 98.6^0F$

2. Fahrenheit to Celsius

3. $(2+3)^2 = 2^2 + 3^2 + 2*2*3 = 25$