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**Curso Superior de Tecnologia em
Análise e Desenvolvimento de Sistemas**

**Disciplina
Linguagem de Programação**

Exercícios

Exercício - 01

Criar um programa em linguagem C que imprima um numero de 0 a 100 com o intervalo de 0,5 segundos.

Exercício - 01



The image shows a screenshot of the Turbo C++ Integrated Development Environment (IDE). The main window displays a C program file named `\TURBOC3\14-0A100.CPP`. The code is as follows:

```
#include<stdio.h>
#include<conio.h>
#include<dos.h>
void main()
{
    int a,x;
    inicio:
    clrscr();
    printf("Programa 0 a 100\n");
    for(a=0;a<=100;a++)
    {
        printf("%d\n",a);
        delay(1000);
    }
```

The IDE interface includes a menu bar at the top with options: File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. A status bar at the bottom provides function key shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu. The editor window also shows a line number indicator '1:1' and a cursor positioned on the opening curly brace of the `main` function.

Exercício - 02

Criar um programa em linguagem C que imprima um numero de 100 a 0 com o intervalo de 0,5 segundos.

Exercício - 02



The image shows a screenshot of the Turbo C++ IDE. The title bar at the top reads "File Edit Search Run Compile Debug Project Options Window Help". The menu bar below it contains the same items. The main window displays a C program file named "15-100A0.CPP" located at "TURBOC3\15-100A0.CPP". The code is as follows:

```
#include<conio.h>
#include<stdio.h>
#include<dos.h>
void main()
{
int a,x;
inicio:
clrscr();
printf("Programa 100 a 0\n");
for(a=100;a>=0;a--)
{
printf("%d\n",a);
delay(1000);
}
```

The status bar at the bottom shows "1:1" and a cursor icon. The bottom-most bar contains function key shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

Exercício - 03

Criar um programa em linguagem C que imprima o alfabeto de A a Z com o intervalo de 0,5 segundos.

Exercício - 03



The image shows a screenshot of the Turbo C++ IDE. The menu bar at the top includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The title bar indicates the file path is \TURBOC3\16-AAZ.CPP. The code editor contains the following C program:

```
#include<conio.h>
#include<stdio.h>
#include<dos.h>
void main()
{
char a;
int x;
inicio:
clrscr();
printf("Programa A a Z\n");
for(a='a';a<='z';a++)
{
printf("%c\n",a);
delay(1000);
}
```

The status bar at the bottom displays function key shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu. The line number 1:1 is visible in the bottom left corner of the code editor.

Exercício - 04

Criar um programa em linguagem C que imprima o alfabeto de Z a A com o intervalo de 0,5 segundos.

Exercício - 04



The image shows a screenshot of the Turbo C++ IDE. The menu bar at the top includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The title bar indicates the file path is \TURBOC3\17-ZAA.CPP. The code editor contains the following C program:

```
#include<conio.h>
#include<stdio.h>
#include<dos.h>
void main()
{
int x;
char a,b;
inicio:
clrscr();
printf("Programa Z a A\n");
for(b='z';b>='a';b--)
{
printf("%c\n", b);
delay(1000);
}
```

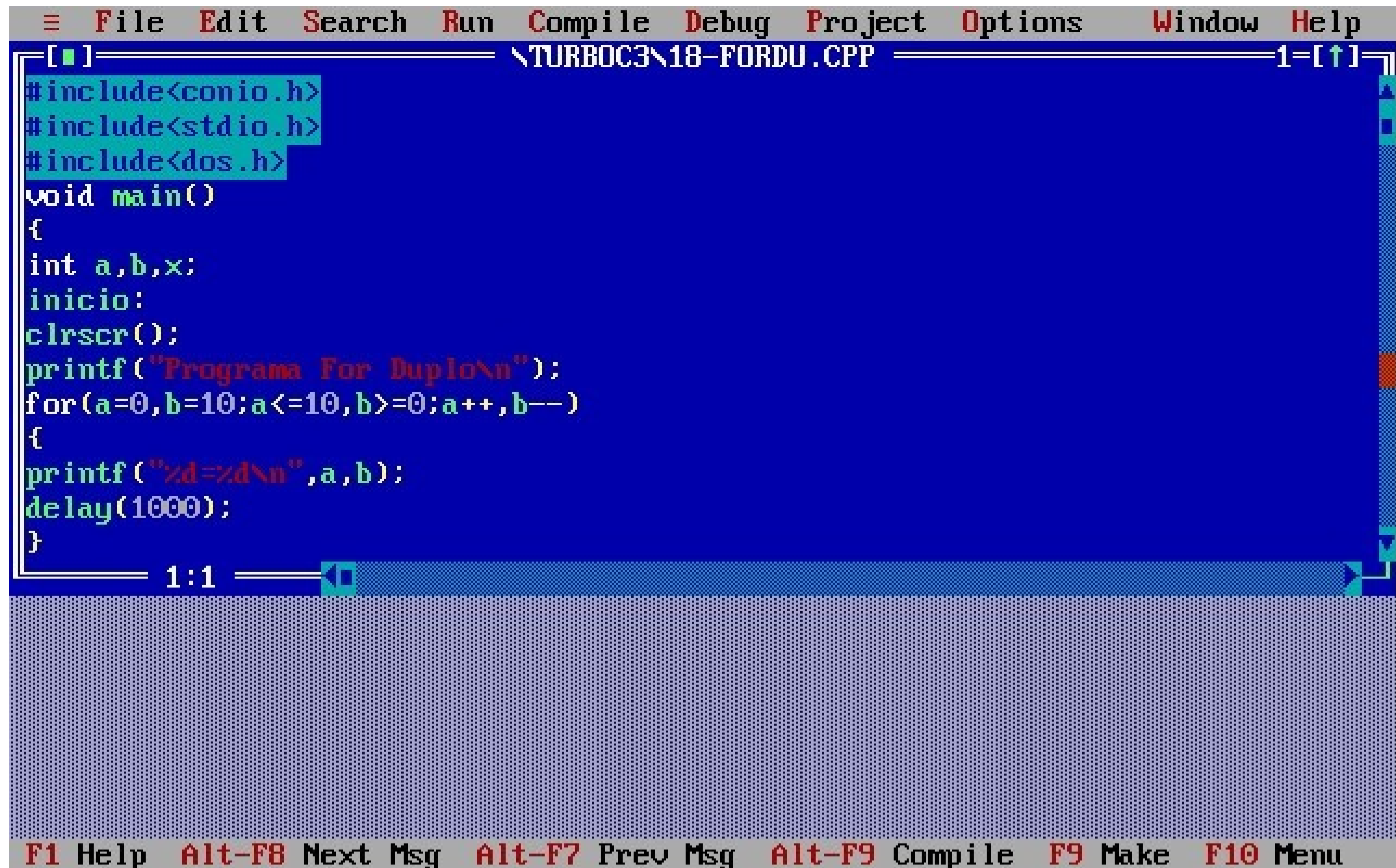
The status bar at the bottom shows the current line and column as 1:1. The bottom-most status bar contains function key shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

Exercício - 05

Criar um programa em linguagem C que imprima dois números com o início de 0 e 10 e finalize 10 e 0, todos os dois ao mesmo tempo, com o intervalo de 0,5 segundos utilizando FOR DUPLA.

0 10
1 9
2 8
3 7
Até
10 0

Exercício - 05



The image shows a screenshot of the Turbo C++ IDE. The title bar at the top reads "File Edit Search Run Compile Debug Project Options Window Help". The menu bar below it contains the same items. The main window title is "\TURBOC3\18-FORDU.CPP". The code editor has a blue background and displays the following C code:

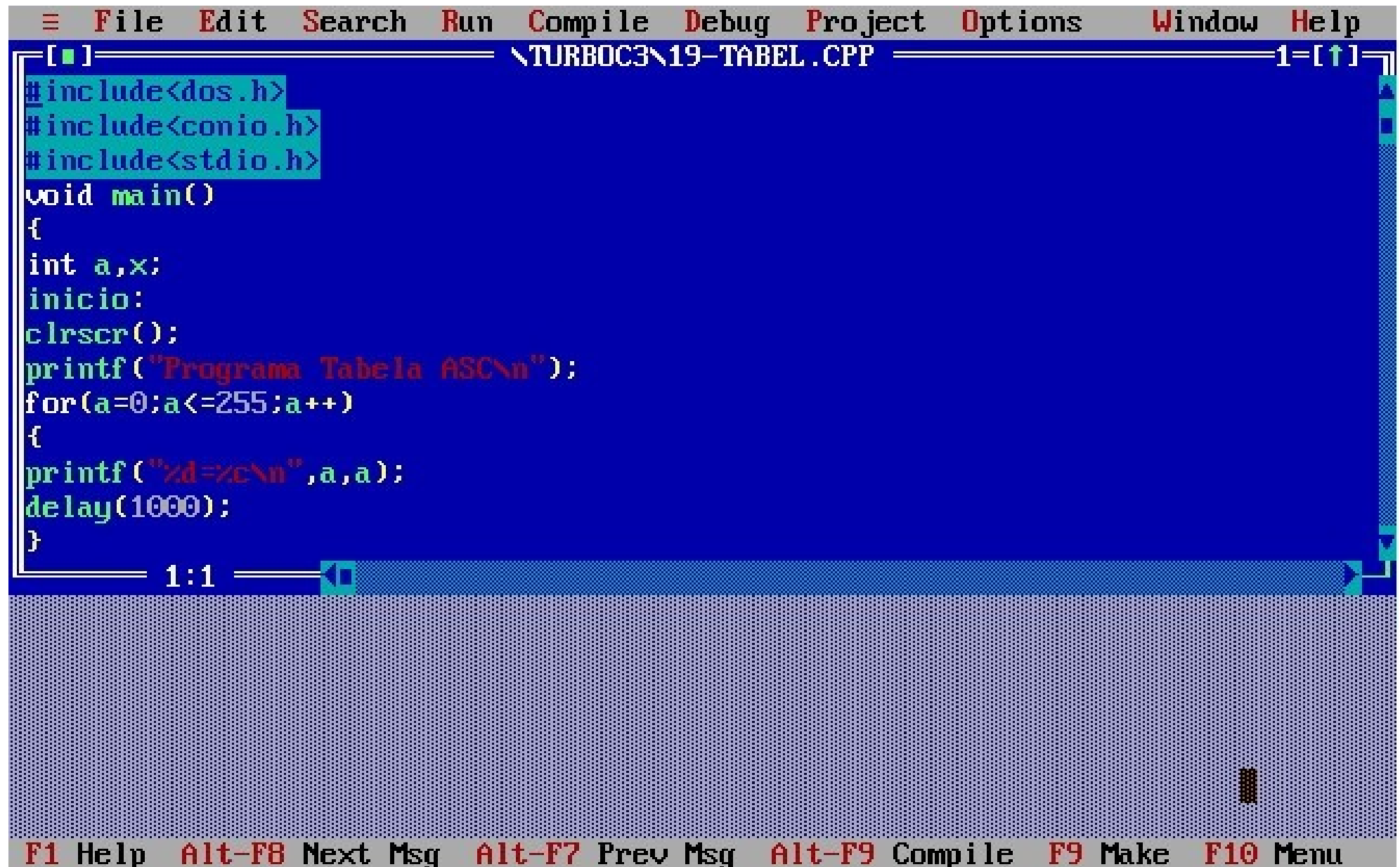
```
#include<conio.h>
#include<stdio.h>
#include<dos.h>
void main()
{
int a,b,x;
inicio:
clrscr();
printf("Programa For Duplo\n");
for(a=0,b=10;a<=10,b>=0;a++,b--)
{
printf("%d=%d\n",a,b);
delay(1000);
}
```

The status bar at the bottom shows "1:1" and a series of function key shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

Exercício - 06

Criar um programa em linguagem C que imprima a tabela ASCII utilizando o comando FOR.

Exercício - 06



The image shows a screenshot of the Turbo C++ IDE. The title bar at the top reads "File Edit Search Run Compile Debug Project Options Window Help". The menu bar below it contains the same items. The main window displays a C program file named "19-TABEL.CPP" located at "C:\TURBOC3\19-TABEL.CPP". The code is as follows:

```
#include<dos.h>
#include<conio.h>
#include<stdio.h>
void main()
{
    int a,x;
    inicio:
    clrscr();
    printf("Programa Tabela ASC\n");
    for(a=0;a<=255;a++)
    {
        printf("%d=%c\n",a,a);
        delay(1000);
    }
}
```

The status bar at the bottom shows "1:1" and a cursor icon. The bottom-most bar contains function key shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu.

Exercício - 07

Criar um programa em linguagem C que imprima uma tabuada do 1 a 10 conforme entrada do usuário, com o intervalo de 0,5 segundos utilizando o comando FOR

$$1 \times 36 = 36$$

$$2 \times 36 = 72$$

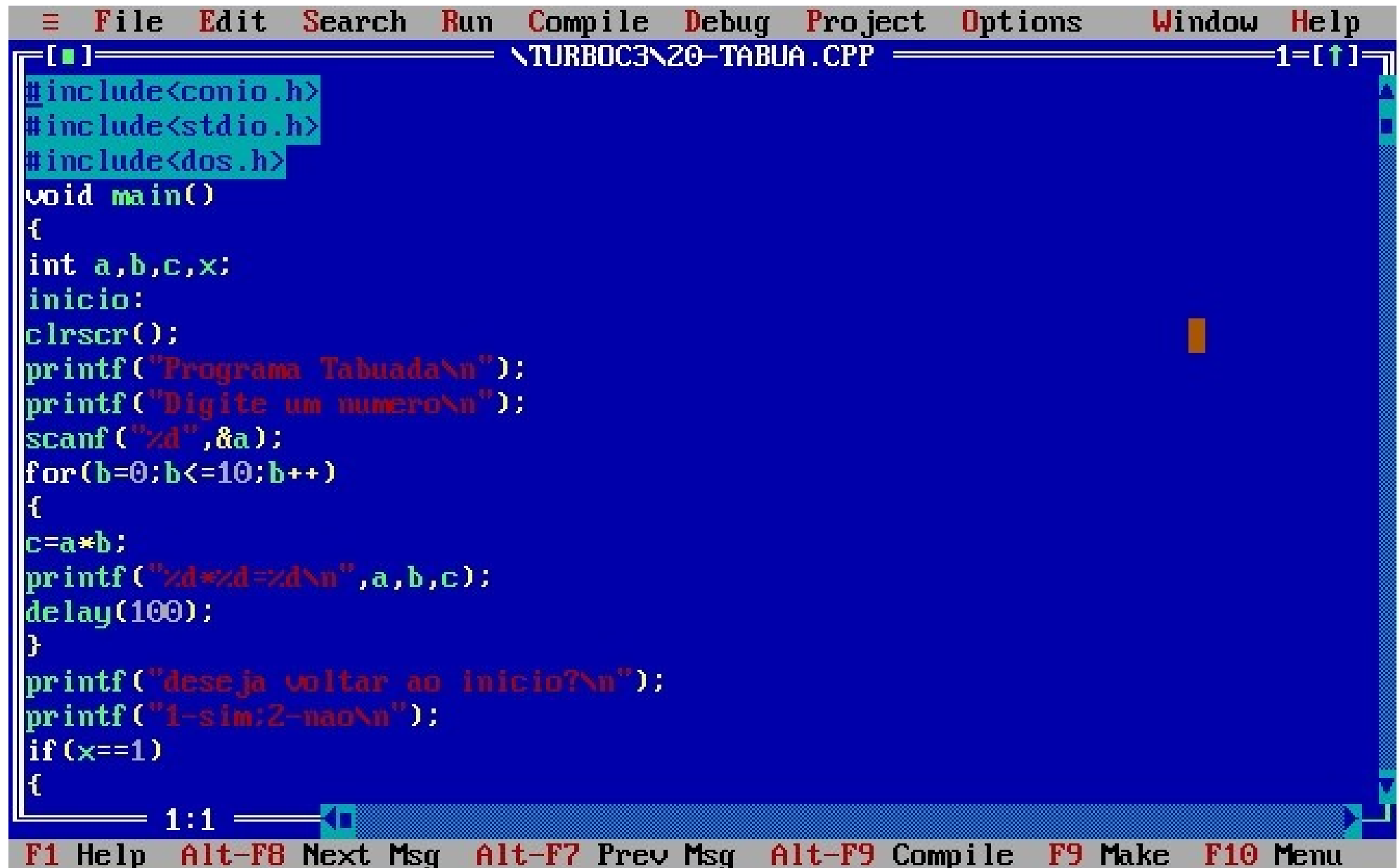
$$3 \times 36 = 96$$

$$4 \times 36 = 144$$

Até

$$10 \times 36 = 360$$

Exercício - 07



The image shows a screenshot of the Turbo C++ Integrated Development Environment (IDE). The window title is "\TURBOC3\20-TABUA.CPP". The menu bar includes File, Edit, Search, Run, Compile, Debug, Project, Options, Window, and Help. The code editor displays a C program that calculates and prints a multiplication table. The code includes headers for `conio.h`, `stdio.h`, and `dos.h`. It defines a `main` function that declares variables `a`, `b`, `c`, and `x`. The program prompts the user to enter a number, then uses a `for` loop to calculate and print the multiplication table for that number. It also includes a `delay` function call and a loop to ask if the user wants to restart the program. The status bar at the bottom shows function key shortcuts: F1 Help, Alt-F8 Next Msg, Alt-F7 Prev Msg, Alt-F9 Compile, F9 Make, and F10 Menu. The line and column indicators show 1:1.

```
[■] \TURBOC3\20-TABUA.CPP 1=[↑]
#include<conio.h>
#include<stdio.h>
#include<dos.h>
void main()
{
int a,b,c,x;
inicio:
clrscr();
printf("Programa Tabuada\n");
printf("Digite um numero\n");
scanf("%d",&a);
for(b=0;b<=10;b++)
{
c=a*b;
printf("%d*%d=%d\n",a,b,c);
delay(100);
}
printf("deseja voltar ao inicio?\n");
printf("1-sim;2-nao\n");
if(x==1)
{
```

1:1

F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

Exercício - 08

**Criar em programa
(CALCULADORA)
em linguagem C,
utilizando FUNÇÃO,
em que calcule as
quatro operações
básicas.
(+ , - , / e *).**

```
Programa Calculadora
Escolha a operacao desejada
1-Adicao
2-Subtracao
3-Multiplicacao
4-Divisao
5-Sair

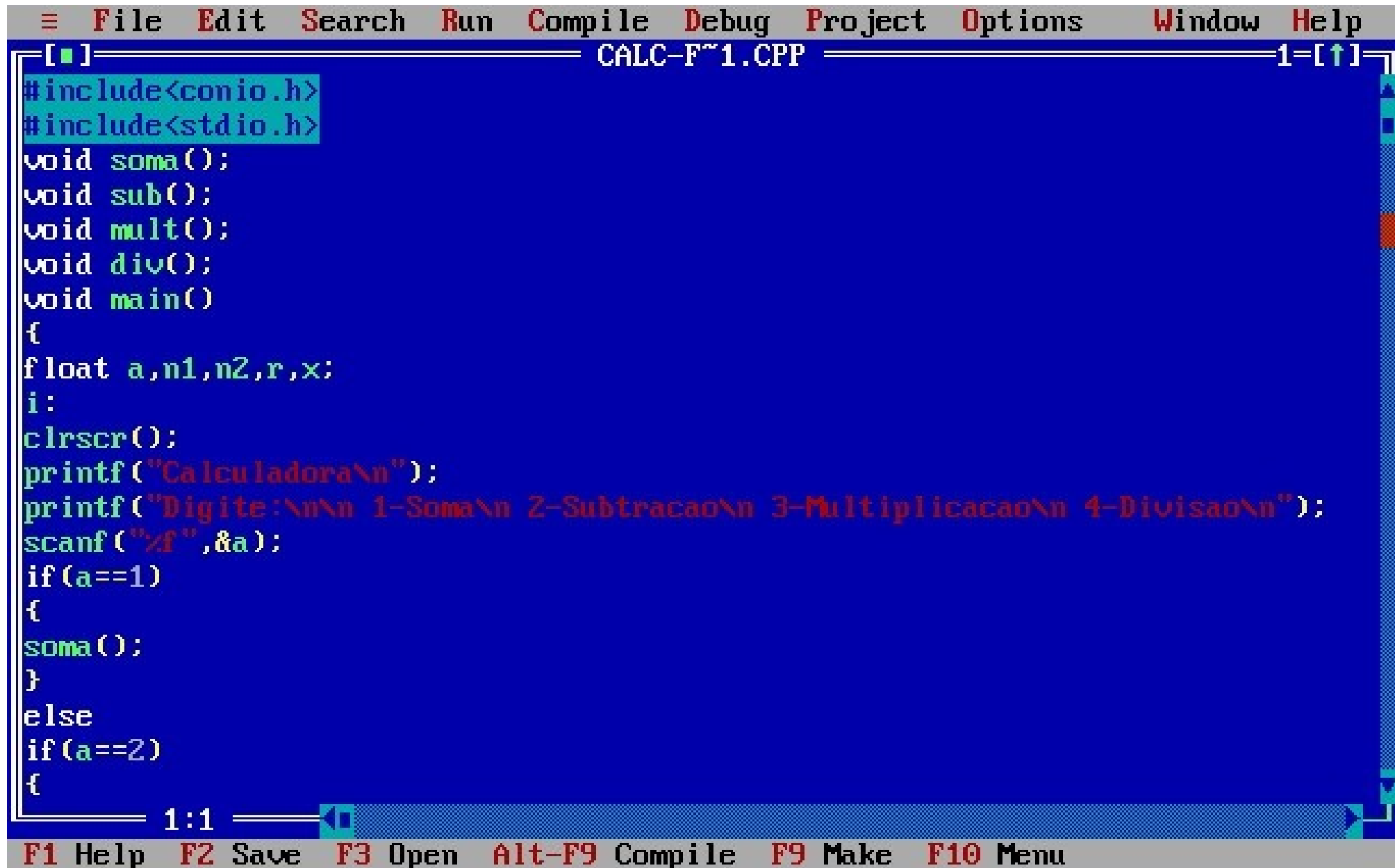
1
Soma
digite os valores

234 923
o valor de x=1157

voltar pro menu?

1-sim/2-nao
```

Exercício - 08



The image shows a screenshot of a Turbo C++ IDE. The title bar at the top reads "File Edit Search Run Compile Debug Project Options Window Help". The main window title is "CALC-F~1.CPP". The code in the editor is as follows:

```
[■]===== CALC-F~1.CPP =====1=[↑]
#include<conio.h>
#include<stdio.h>
void soma();
void sub();
void mult();
void div();
void main()
{
float a,n1,n2,r,x;
i:
clrscr();
printf("Calculadora\n");
printf("Digite:\n\n 1-Soma\n 2-Subtracao\n 3-Multiplicacao\n 4-Divisao\n");
scanf("%d",&a);
if(a==1)
{
soma();
}
else
if(a==2)
{
```

The status bar at the bottom shows "1:1" and a set of navigation icons. The bottom-most bar contains function key shortcuts: F1 Help, F2 Save, F3 Open, Alt-F9 Compile, F9 Make, and F10 Menu.

Exercício - 09

Criar em programa em linguagem C, utilizando FUNÇÃO, que converta de BIN/DEC e DEC/BIN .

Exercício - 09

```

≡ File Edit Search Run Compile Debug Project Options Window Help
\TURBOC3\BINDECCA.CPP 2=↑
#include<conio.h>
#include<stdio.h>
void bina();
void deci();
void main()
{
int a;
clrscr();
printf("Calculadora Binario e Decimal\n");
printf("Digite:\n1-Binario para Decimal 2-Decimal para Binario 3-Sair\n");
scanf("%d",&a);
if(a==1)
{
bin();
}
else
if(a==2)
{
dec();
}
else

```

13:26

F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

Exercício - 10

Criar em programa em linguagem C, que efetue a PA conforme imagem abaixo,utilizando FOR:

```
PROGRESSAO ARITMETICA

Primeiro ter:
1

Razao:
2

Numero de Termos:
3

Soma dos termos:9

1 - voltar do inicio . 2 - finalizar programa
```

Exercício - 10

```
printf("\n\nPROGRESSAO ARITMETICA\n\n");
printf("\t\n\nPrimeiro ter:\n\n");
scanf("%d",&a1);
printf("\n\nRazao:\n\n");
scanf("%d",&r);
printf("\n\nNumero de Termos:\n\n");
scanf("%d",&n);
soma=0; aq=a1;
for(i=1;i<=n; i=i+1){
soma=soma+aq; aq=aq+r;}
printf("\n\nSoma dos termos:%d\n\n",soma);
printf("\n\n1 - voltar do inicio . 2 - finalizar programa\n\n");
scanf("%d",&x);
if(x==1){
goto inicio;}
else
if(x==2){
goto fim;}
getch();
fim:
}
```