

```

1 program questao2
2   implicit none
3   real, dimension(3, 3) :: A
4   real, dimension(3) :: b, x
5   integer :: n, i
6
7   n = 3
8
9   data (A(1,i), i=1,3) /  3.0,  2.0,  -1.0 /
10  data (A(2,i), i=1,3) /  1.0,  3.0,  1.0 /
11  data (A(3,i), i=1,3) /  2.0,  2.0,  -2.0 /
12
13  data (b(i), i=1,3) /  0.0,  1.0,  2.0 /
14
15  call jordan(n, A, b, x)
16
17  print *, "Resultado do sistema de equações lineares"
18  do i = 1, 3
19    print *, x(i)
20  end do
21 end program questao2
22
23 subroutine jordan(n, A, b, x)
24   implicit none
25   real, dimension(3, 3) :: A
26   real, dimension(3) :: b, x
27   real :: m
28   integer :: i, j, k, n
29
30   do k = 1, n
31     do i = 1, n
32       if ( i .ne. k ) then
33         m = A(i, k)/A(k, k)
34         A(i, k) = 0.0
35         do j = k+1, n
36           A(i, j) = A(i, j) - m*A(k, j)
37         end do
38         b(i) = b(i) - m*b(k)
39       end if
40     end do
41   end do
42
43   do i = 1, n
44     x(i) = b(i)/A(i, i)
45   end do
46 end subroutine jordan

```