

Trabalho de Seminários II

Quarto Trabalho

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1.

```
1 #include <stdio.h>
2 #include <conio.h>
3 #include <mpi.h>
4 int main( )
5 {
6     int x;
7     int i;
8     int contador = 0;
9     int myrank, nprocs;
10    MPI_Init(NULL,NULL);
11    MPI_Comm_rank(MPI_COMM_WORLD, &myrank);
12    MPI_Comm_size(MPI_COMM_WORLD, &nprocs);
13    int A[ ];
14
15    printf( "Digite um número: " );
16    scanf( "%d",&x);
17
18    If( x >= 0 )
19    {
20        A = new int [ x ];
21
22        for( i = 0; i < x; i++ )
23        {
24            MPI_Scatter ( A[i], x, MPI_INT, A[i], x,
25MPI_INT, 1, MPI_COMM_WORLD )
26            A[i] = i;
27            if ( A[i] % 2 != 0 )
28            {
29                MPI_Reduce ( &A[i] ,&contador ,MPI_INT
30,contador ,1 ,MPI_COMM_WORLD )
31                contador = contador + 1;
32            }
33        }
34        MPI_Finalize( );
35    }
```

2.

```
1 #include <stdio.h>
2 #include <conio.h>
3 #include <mpi.h>
4 int main( )
5 {
6     int x;
```

```

7      int i;
8      int myrank, nprocs;
9      MPI_Init(NULL, NULL);
10     MPI_Comm_rank(MPI_COMM_WORLD, &myrank);
11     MPI_Comm_size(MPI_COMM_WORLD, &nprocs);
12     int A[ ];
13     int B[ ];
14     int soma = 0;
15
16     printf( "Digite um número: " );
17     scanf( "%d",&x);
18     if( x >= 0 )
19     {
20         A = new int [ x ];
21         B = new int [ x ];
22     }
23
24     for( i = 0; i < x; i++ )
25     {
26         MPI_Scatter ( A[i], x, MPI_INT, A[i], x,
MPI_INT, 1, MPI_COMM_WORLD )
27         A[i] = i;
28         MPI_Scatter ( B[i], x, MPI_INT, B[i], x,
MPI_INT, 2, MPI_COMM_WORLD )
29         B[i] = i+1;
30
31         MPI_Reduce ( &soma ,&soma ,MPI_INT ,soma
,1 ,MPI_COMM_WORLD )
32         soma = soma + ( A[i]*B[i] );
33     }
34     MPI_Finalize( );
35 }

```