NOTE: I was not able to get my c Sparse matrix to point to my resulting matrix after the mask. However my mask function, works and I have included print statements that show row-by-row the matrix being masked.

CASE 1(from test case provided):

```
Rickys-MacBook-Pro:assignment2 rickyspence$ ./sparseMatrix
Reading Matrix A:
Please enter number of rows and columns
3 4
Enter number of terms in row 1
1
Enter element's column, and value of each term in row 1
1 111
Enter number of terms in row 2
2
Enter element's column, and value of each term in row 2
2 222 3 233
Enter number of terms in row 3
0
Matrix A:

rows = 3 columns = 4
row 1[ col:1 val= 111, ]
row 2[ col:2 val= 222, col:3 val= 233, ]
row 3[ ]
Reading Matrix B:
Please enter number of rows and columns
3 4
Enter number of terms in row 1
1
Enter element's column, and value of each term in row 1
1 1
Enter number of terms in row 2
1
Enter element's column, and value of each term in row 2
3 1
Enter number of terms in row 3
0
Matrix B, the boolean mask matrix:

rows = 3 columns = 4
row 1[ col:1 val= 1, ]
row 2[ col:3 val= 1, ]
row 3[ ]

Masked Matrix
```

```
rows = 3 Cols = 4
row 1[ col:1 val= 111, ]
row 2[ col:3 val= 233, ]
row 3[ ]

rows = -2147483648 columns = 0
```

CASE 2(Handling masking 2 matrices of different sizes)

```
Rickys-MacBook-Pro:assignment2 rickyspence$ ./sparseMatrix
Reading Matrix A:
Please enter number of rows and columns
3 3
Enter number of terms in row 1
1
Enter element's column, and value of each term in row 1
2 112
Enter number of terms in row 2
2
Enter element's column, and value of each term in row 2
2 1 3 12
Enter number of terms in row 3
0
Matrix A:

rows = 3 columns = 3
row 1[ col:2 val= 112, ]
row 2[ col:2 val= 1, col:3 val= 12, ]
row 3[ ]
Reading Matrix B:
Please enter number of rows and columns
2
Enter number of terms in row 1
0
Enter number of terms in row 2
0
Matrix B, the boolean mask matrix:

rows = 2 columns = 0
row 1[ ]
row 2[ ]
Matrix A and B are not of the same diemension

rows = -1073741824 columns = 0
```

CASE 3(Inserting a node into an invalid column. Will move to next row automatically)

```
Rickys-MacBook-Pro:assignment2 rickyspence$ ./sparseMatrix
Reading Matrix A:
Please enter number of rows and columns
4 4
Enter number of terms in row 1
1
Enter element's column, and value of each term in row 1
5 1
Invalid column index, moving onto next row
Enter number of terms in row 2
2
Enter element's column, and value of each term in row 2
1 1 2 3
Enter number of terms in row 3
3
Enter element's column, and value of each term in row 3
4 5 1 2 5 1
Invalid column index, moving onto next row
Enter number of terms in row 4
0
Matrix A:

rows = 4 columns = 4
row 1[ ]
row 2[ col:1 val= 1, col:2 val= 3, ]
row 3[ col:1 val= 2, col:4 val= 5, ]
row 4[ ]
Reading Matrix B:
Please enter number of rows and columns
4 4
Enter number of terms in row 1
1
Enter element's column, and value of each term in row 1
1 1
Enter number of terms in row 2
2
Enter element's column, and value of each term in row 2
2 1 4 1
Enter number of terms in row 3
0
Enter number of terms in row 4
1
Enter element's column, and value of each term in row 4
1 1
```

```
Matrix B, the boolean mask matrix:

rows = 4 columns = 4
row 1[ col:1 val= 1, ]
row 2[ col:2 val= 1, col:4 val= 1, ]
row 3[ ]
row 4[ col:1 val= 1, ]

Masked Matrix
rows = 4 Cols = 4
row 1[ ]
row 2[ ]
]
row 3[ ]
row 4[ ]

rows = 536870912 columns = 0
```