HAND IN MODULE 2

MARIUS HAAKONSEN, OLE K LARSEN

1. Task 1:

Exercise A:
The both of us have already played Tetris, so we'll skip this part.

Exercise B:

Implementing the function void Board::reduce() to remove the lines when completed.

Looping over row number i, from top to bottom.

```
void Board::reduce() {
    for(int i = 3; i < 19; i++) {
```

Defining variables to use while looping over j number of columns.

```
        int count = 0;
        int tilecount = 0;
        for(int j = 1; j < 11; j++) {
            if (tiles[j][i] != sf::Color::Black) {
                count++;
            }
        }
```

If all tiles in the row 'k' has a different color than black, the loop from 'k' rows and upwards is set to be equal to the row above it, giving the impression that the rows "fall down".

```
            if(count == 10) {
                tilecount = i;
                for(int k = tilecount; k >= 3; k--) {
                    for(int j = 1; j < 11; j++) {
                        tiles[j][k] = tiles[j][k-1];
                    }
                }
                break;
            }
```

As a little bonus practice we also added the opportunity to press the space key to make the shape move all the way down, and we added a score tab to the right.

2. Task 2:

How was this puzzle created? Puzzling.stackexchange.com was utilized to get the correct specifications of the puzzle, and inspiration for the statements to be made by the three people in the encounter.

Knight: Always tells the truth.
Knave: Always tells a lie.
Spy: Tells either the truth or a lie.

The puzzle involves encountering three different people, person A, B and C.

They all have their own statements:
A: "I am the only knight."
B: "Me and A are knights."
C: "B is a knave."

Who is the knight, who is the knave, and who is the spy among the three?

Reformulated statements:

A: "B and C are not knights."
B: "C is the only one not telling the truth."
C: "B is not a knight."

Knight, Knave and Spy			
Combinations A B C	Is it true? A B C	Would it be said? A B C	Solution A B C
0 1 x	0 0 1	1 0 x	004
0 x 1	AX	ALA	248
1 x 0	AL	ALB	008
1 0 x	DZ	DZA	012
x 0 1	AS	ASM	016
x 1 0	AD	AND	020

3. Code Appendix: