Exercise 1

2.

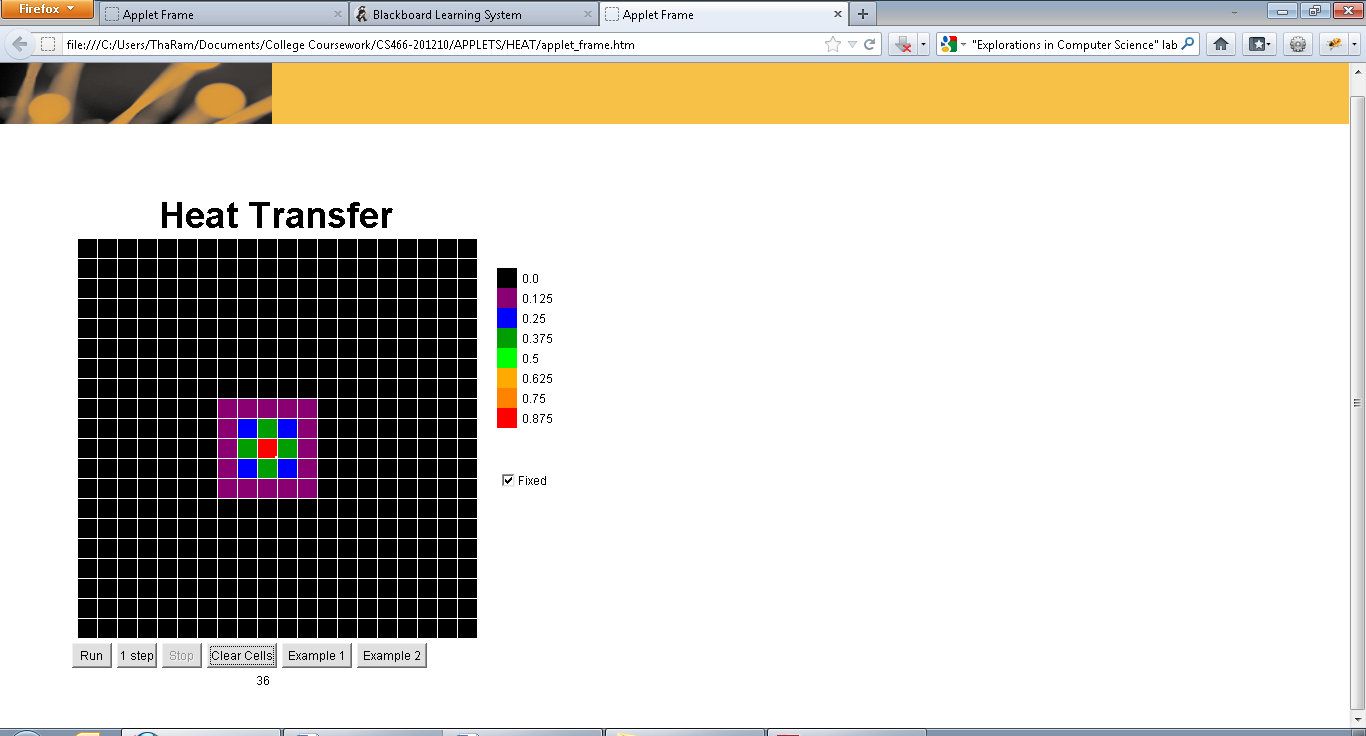
|  |  |  |  |
| --- | --- | --- | --- |
| **Line length** | **Ending config** | **Time to reach** | **Notes** |
| 1 | Blank | 1 | Disappears almost completely |
| 2 | Blank | 1 | Disappears |
| 3 | Oscillating | 2 |  |
| 4 | Stable | 3 |  |
| 5 | Oscillating | 20 |  |
| 6 | Blank | 25 |  |
| 7 | Stable | 20 |  |
| 8 | Stable | 50 |  |
| 9 | Changing | 30 |  |
| 10 | Changing | 35 |  |
| 11 | Oscillating | 25 |  |
| 12 | Blank | 50 |  |
| 13 | Blank | 50 |  |
| 14 | Stable | 30 |  |

3. Some of the odd numbers ended up oscillating at the end.

4.

|  |  |  |  |
| --- | --- | --- | --- |
| **Line Length** | **Ending config.** | **Time to reach** | **Notes** |
| 2 | Stable | 1 |  |
| 3 | Stable | 10 |  |
| 4 | Stable | 10 |  |
| 5 | Stable | 15 |  |
| 6 | Oscillating | 15 |  |
| 7 | Oscillating | 10 |  |
| 8 | Stable | 10 |  |
| 9 | Stable | 20 |  |
| 10 | Oscillating | 15 |  |
| 11 | Oscillating | 35 |  |
| 12 | Oscillating | 25 |  |
| 13 | Oscillating | 20 |  |
| 14 | Oscillating | 20 |  |

Exercise 2



4) There are 4 different colors in a square like pattern.

5) Yes

6) If the coal is in the air

7) The rate of change is gradual and represents what might happen in reality

8) The colors gradually disappear beginning with the red and the other colors closest to it. I don’t really know what’s going on.