**Enemy Type Algorithm – Dry Run**

Start with score - 250

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Line Number** | **Score** | **n** | **addEnemy()** | **Score > 0** |
| 4 | 250 |  |  |  |
| 6 |  | 3 |  |  |
| 25 |  |  | 3 |  |
| 26 | 150 |  |  |  |
| 31 |  |  |  | TRUE |
| 6 |  | 1 |  |  |
| 9 |  |  | 1 |  |
| 10 | 140 |  |  |  |
| 31 |  |  |  | TRUE |
| 6 |  | 2 |  |  |
| 17 |  |  | 2 |  |
| 18 | 90 |  |  |  |
| 31 |  |  |  | TRUE |
| 6 |  | 1 |  |  |
| 9 |  |  | 1 |  |
| 10 | 80 |  |  |  |
| 31 |  |  |  | TRUE |
| 6 |  | 3 |  |  |
| 28 |  |  | Cannot Add |  |
| 31 |  |  |  | TRUE |
| 6 |  | 2 |  |  |
| 17 |  |  | 2 |  |
| 18 | 30 |  |  |  |
| 31 |  |  |  | TRUE |
| 6 |  | 2 |  |  |
| 17 |  |  | Cannot Add |  |
| 31 |  |  |  | TRUE |
| 6 |  | 1 |  |  |
| 9 |  |  | 1 |  |
| 10 | 20 |  |  |  |
| 31 |  |  |  | TRUE |
| 6 |  | 1 |  |  |
| 9 |  |  | 1 |  |
| 10 | 10 |  |  |  |
| 31 |  |  |  | TRUE |
| 6 |  | 1 |  |  |
| 9 |  |  | 1 |  |
| 10 | 0 |  |  |  |
| 31 |  |  |  | FALSE |

End of code. It added an Enemy 3, 1, 2, 1, 2, 1, 1 and 1.

Start with score – 3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Line Number** | **Score** | **n** | **addEnemy()** | **Score > 0** |
| 5 | 3 |  |  |  |
| 6 |  | 3 |  |  |
| 25 |  |  | Cannot Add |  |
| 31 |  |  |  | TRUE |
| 5 | 3 |  |  |  |
| 6 |  | 2 |  |  |
| 25 |  |  | Cannot Add |  |
| 31 |  |  |  | TRUE |
| 5 | 3 |  |  |  |
| 6 |  | 3 |  |  |
| 25 |  |  | Cannot Add |  |
| 31 |  |  |  | TRUE |
| 5 | 3 |  |  |  |
| 6 |  | 1 |  |  |
| 25 |  |  | Cannot Add |  |
| 31 |  |  |  | TRUE |
| 5 | 3 |  |  |  |
| 6 |  | 1 |  |  |
| 25 |  |  | Cannot Add |  |
| 31 |  |  |  | TRUE |

This case would cause an infinite loop. However, this should be fine as the game only deals with scores in multiples of 10 and so is an impossible scenario to occur unless the user uses a cheat engine in an attempt to cheat and edit their score.