## 12 Days of ChrisMATH — Day 1

The rules of Star Battle are simple. Place stars on the grid so that the following two rules hold:

- (1) There is 1 star in each row, column, and cage (defined by the bold edges)
- (2) Two stars cannot be next to each other horizontally, vertically, or diagonally (a "King's move" away)

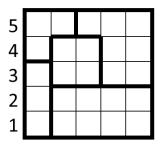
For this challenge, solve the 3 Star Battle puzzles on the next pages. To submit your answer, write the number of the row that each star belongs to, from left to right, where the first row is at the bottom. Don't use spaces or punctuation. For example, consider the following solved Star Battle puzzle:

| 5 | x | × | ★ | ×          | × |
|---|---|---|---|------------|---|
| 4 | × | × | × | ×          | ★ |
| 3 | ★ | × | × | ×          | × |
| 2 | × | × | × | $\bigstar$ | × |
| 1 | × | ★ | × | ×          | × |

The first star (in the leftmost column) is in row 3, the next star is in row 1, the next is in row 5, the next is in row 2, and the last star (in the rightmost column) is in row 4. You would submit the 5-digit number: 31524

Here are the puzzles!

Level 1:





| 6           |  |  |  |
|-------------|--|--|--|
| 6<br>5      |  |  |  |
| 4           |  |  |  |
| 3           |  |  |  |
| 4<br>3<br>2 |  |  |  |
| 1           |  |  |  |

Level 3:

