



While working through these notes, please work in the following way to ensure you get answer check trigger for the correct grid:

- Keep track of where ships are on the left-side grid. Use the Penpa+ supported battleship option, which can be found under Shape -> Special 1 -> Battleship. Answer check is enabled for the following way of ship placement with Black selected + Ship's names written using Number mode (M size, light blue). Colors are only for aesthetic:

	A	B	C	D	E	F	G	H	I	J
1	???	???	???	???	???	???	???	???	De	De
2	???	???	???	???	???	???	???	Su	Su	Su
3	???	???	???	???	???	???	???	Cr	Cr	Cr
4	???	???	???	???	???	Ba	Ba	Ba	Ba	Ba
5	???	???	???	???	Ca	Ca	Ca	Ca	Ca	Ca
6	???	???	???	Ca	???	???	???	???	???	???
7	???	???	Ba	Ca	???	???	???	???	???	???
8	???	Su	Cr	Ba	Ca	???	???	???	???	???
9	De	Su	Cr	Ba	Ca	???	???	???	???	???
10	De	Su	Cr	Ba	Ca	???	???	???	???	???

- Keep track of regions and digit placement on the right-side grid. Make sure that the regions are entirely marked via the Edge option (green), including the edge of the grid itself. Do not forget to entirely edge off empty cell blocks. Colors are helpful to mark regions but aren't mandatory for answer check.

Following statements are known/true about the game: (Niverio's Notes)

- Surprisingly, when both players finished placing their fleet, even when both fleets were layered onto the same grid, no two ships overlapped. No two ships were touching each other either, neither orthogonally nor diagonally.
- Even from the start, it was clear that both players had completely different strategies. KNT had placed X of his ships horizontally and Y of his ships vertically, whereas TNC had placed Y of his ships horizontally and X of his ships vertically.
- **Every single ship cell is occupied by a digit, and digits along every ship form a valid German Whispers line, which means that adjacent digits on all ships differ by at least 5.**
- **Two digits were missing entirely from TNC's fleet, and those missing digits summed to 8. KNT on the other hand, only had one digit missing from his entire fleet.**
- It was very intriguing to see that Row 2 had more cells of ships than Row 3 had after the initial setup, since Rows 3/8 and Columns C/H are usually very vital in Battleship.
- Another important thing to note was how neither player placed a vertical ship on Column H.
- KNT made a bold decision by placing his submarine parallel to his destroyer.
- The first shot of the game was aimed at D3, which was a miss.
- The loser of the battle managed to draw first blood by sinking his opponent's battleship with a decisive strike on B3.
- The winner of the game had his first successful hit of the game onto **C1**, which spelled bad news for the loser's carrier, and **the shot digit was a 3.**
- The loser's battleship wasn't long for this world either, once his opponent took a risk and aimed at the corner of J1.
- KNT was visibly disappointed once his shot onto G4 did not hit a ship.
- TNC let a huge sigh of relief once one of KNT's shots went right in between his submarine and destroyer.
- There were alarm bells ringing in the loser's fleet once their submarine got hit by a missile aimed at Column A.
- The winner fleet also wasn't having a great time, especially after their carrier was hit by a missile landing at Column D.
- TNC's gamble of placing two different ships on a certain column backfired massively, as both ships were sunk by the end of the match.
- A successful hit onto Row 9 by the winner fleet sealed the demise of the losing fleet.
- The game winning shot was made onto a horizontal cruiser.
- Once the game winning shot was made, both players had made an equal number of shots.
- The MVP for the winning fleet was their horizontal destroyer, which wasn't hit by a single shot the entire game. Every other ship in the match has been sunk.

Niverio's Battlefield Analysis after the match:

(Hint: You should be able to determine the location of every single ship and which ships belong to which player, along with who won the match just with the information provided in the section Niverio's Notes. You do not need to combine the information in this section with the previous section regarding the points mentioned above, although if you find a bypass via information here, congrats.)

The notes written in this color in the previous section indicate that those points still carry relevant information that will be helpful during this part of the solve.

- Every single ship was contained in a single region, and every single region had exactly one ship.
- No two ships' digits summed to the same number.
- TNC's carrier did not contain the digit 8.
- KNT didn't land a single shot on the digit 6.
- The sum of the digits on TNC's cruiser was larger than the sum of the digits on TNC's submarine.
- The region that contained the ship whose digits summed to 13 had at least two cells in Column C.
- The 2 in Row 5 belonged to the region that had KNT's carrier.
- The cell A8 belonged to a region that contained a KNT ship.
- It was possible to divide the region that contained the ship whose digits summed to 20 into a T-shaped Tetromino and a T-shaped Pentomino.
- The region that contained TNC's carrier had at least 2 cells in Row 3.
- The cell F1 did contain a digit.
- An empty cell in Column B saw 2 other empty cells by a knight's move.
- Row 1 contained 3 distinct regions.
- The cells that did not have any ships in the 3x3 area centered around them summed to 9.
- One region that contained a battleship took their 8 from Column H.
- The region that contained TNC's cruiser did not contain the cell of G8.
- The cell D9 did not contain the digit 3.
- The cell J6 did not contain the digit 7.
- The digit in I7 was consecutive to the digit in J7.