Problem of the Week
Problem C
What a Mess!

Jing was looking through an old math notebook and found the following mess on one of the pages:

\[
\begin{array}{c}
2 \_ \_ 4 \\
+ \_ 2 9 \\
\_ 3 3
\end{array}
\]

The middle digit of the top and bottom numbers were both smudged and unreadable. Beside the question there was a handwritten note which read: “The sum is divisible by three.”

If the missing middle digit in the top number is \( A \) and the missing middle digit in the bottom number is \( B \), determine all possible values for \( A \) and \( B \).