**Problem of the Week**
**Problem A and Solution**
**What Number Am I?**

**Problem**

I am a 3-digit number.

All of my digits are even numbers greater than 1.

My hundreds digit is greater than my tens digit.

My tens digit minus my ones digit is twice as much as my hundreds digit minus my tens digit.

My tens digit is a multiple of 3.

What number am I?

**Solution**

First, we note that the even digits that are greater than 1 are 2, 4, 6, and 8. Thus, the only possible digits in the number are 2, 4, 6, and 8.

Since the tens digit is also a multiple of 3, the tens digit must be 6. This is the only number in the list above that is a multiple of 3.

Since the hundreds digit is greater than the tens digit, the hundreds digit must be 8. This is the only number in the list above that is greater than 6.

The difference between the hundreds digit and the tens digit is $8 - 6 = 2$. Twice that difference is $2 \times 2 = 4$. Now, we need a number such that when we subtract it from 6, we get 4. Since $6 - 2 = 4$, the ones digit must be 2.

Therefore, the number is 862.