

Huddle 2008

1. Evaluate $1 - 2 + 3 - 4 + 5 - \dots + 2007 - 2008$.

2. Let N be the number of digits in 2^{2008} , in the usual decimal notation. How many digits has N ?

3. Ann and Bob are going to play a game. Ann chooses a number from 1 to 10. Bob then adds a number from 1 to 10 to Ann's number, and announces the sum. The players then alternate adding a number from 1 to 10 to the previously announced number. The player who says "100" wins. In order to win, what number should Ann choose for her first move?

4. Find the area inside the hexagon. Write the answer in the form $a + b\sqrt{2}$, for integers a, b .

