GALLOP ROUND 2

4. Gary the Snail is going on a crawl. Every minute, he travels one foot west, north, or east with equal likelihood (he is very particular and hates traveling south). What is the number of four-step paths Gary can take such that he makes two consecutive left steps exactly once?

5. Find the sum of all positive integers n such that $n^2 + 1$ is divisible by $n + 1$.

6. Jim has some positive number of cows, ducks, and three-legged people on his farm. He counts the heads and feet, and sees 25 heads and 87 legs. If there are more cows than three-legged people and more three-legged people than ducks, and the number of cows and ducks are both multiples of four, how many three-legged people are there?