

Kwantlen Polytechnic University

# Mathematics Problem of the Week

Problem number 261

Posted Monday September 21<sup>th</sup> 2015

Submit by noon, Monday September 28<sup>th</sup> 2015



Mr. MacDonald owns a farm in Yukon. On MacDonald's farm there are 106 animals. The animals consist of chickens, swans, sheep, horses, a grey cat, a white dog and a green parrot. It was verified that on MacDonald's farm all chicken are white, all swans are black, all horses are white and, among the sheep, there are white ones and black ones. In addition

- The total number of white animals is 67.
- The total number of beaks is 65. (Definition: the mouth a bird is called a beak.)
- The total number of legs is 294. (Definition: each bird has 2 legs. The dog, the cat, each horse and each sheep has 4 legs. The two legs of Mr. MacDonald are **not** included in this total.)

**How many sheep are there on Mac Donald's farm?**

---

Submit your solution by

- emailing it to [MathProblem@kpu.ca](mailto:MathProblem@kpu.ca)
- putting it in the MPOW box in the Math Assistance Centre on the Surrey campus (library, main floor)
- putting it in the MPOW box in The Learning Centre on the Richmond campus (located in the library)
- giving it to Tariq Nuruddin (Surrey, in the MAC) or Raquel Cabral (Richmond 3455)

Be sure to include your name. In order to be eligible for the prize, KPU students should also include their student numbers. Winners names will be posted on the Problem of the Week web page. You can have the Problem of the Week emailed to you each week. Just go to the website and sign up.

Web site: <http://www.kpu.ca/mathematics-problem-week> .