# Problem of the Week <br> Problem B <br> How Dense is This? 

In honour of Canada 150, let's explore how much space it has. In terms of its land area, $9156521 \mathrm{~km}^{2}$, Canada is the fourth largest country in the world. Russia, China, and the U.S.A. have greater land area, but Canada's population is significantly less.
a) Find the area and population* of the following countries. Add three of your own choices to the table.

| Country | Land Area | Population | Persons per $\mathrm{km}^{2}$ |
| :--- | :--- | :--- | :--- |
| Canada | $9156521 \mathrm{~km}^{2}$ | 36.63 million | $\approx 4.0$ persons $/ \mathrm{km}^{2}$ |
| Russia |  |  |  |
| Japan |  |  |  |
| Ukraine |  |  |  |
| India |  |  |  |
| Finland |  |  |  |
| Brazil |  |  |  |
| Sudan |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

b) Which countries have the least, and greatest, population density? In each of these two countries, how many square km of land area are there for each person?
c) The city of Mumbai in India has an area of $603.4 \mathrm{~km}^{2}$, and a population of 21.69 million.

How many square metres of land area are there for each person in Mumbai?
d) How many square metres of classroom space are there for each person in your classroom?

* For populations and areas, try the website
http://www.worldometers.info/world-population/population-by-country/
NOTE: Land area data varies, depending on your chosen source.


## Strand Data Management and Probability



