Problem of the Week Problem B How Dense is This?

In honour of Canada 150, let's explore how much space it has. In terms of its land area, $9\,156\,521\,\mathrm{km^2}$, 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 km^2
Canada	$9156521{ m km}^2$	36.63 million	$\approx 4.0 \text{ persons/km}^2$
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.

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