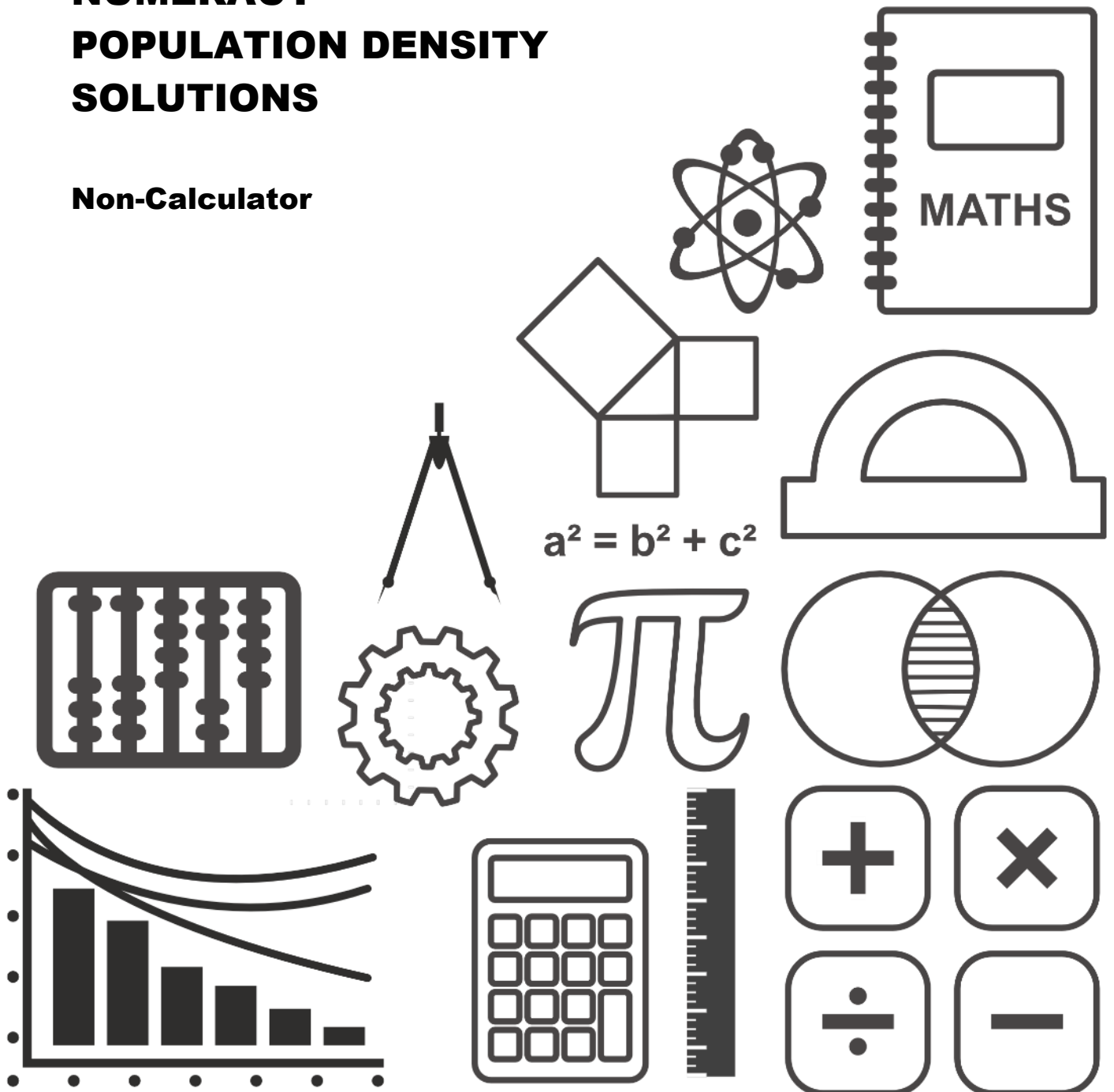


MATHSDIY

GCSE TOPIC BOOKLET NUMERACY POPULATION DENSITY SOLUTIONS

Non-Calculator



1. The table below shows the approximate land area and population for 5 countries in 2014.

Country	Approximate land area, km ²	Approximate population
Argentina	2800000	40000000
Austria	84000	8400000
Canada	10000000	34000000
Pakistan	800000	170000000
United Kingdom	240000	62000000

(a) Which of the 5 countries had a population density of approximately 100 people per km²? Circle your answer. [1]

Argentina **Austria** Canada Pakistan United Kingdom

Austria because $\frac{8400000}{84000} = 100 \text{ people/km}^2$

(b) Which of these countries had the greatest population density? Circle your answer. [1]

Argentina Austria Canada Pakistan **United Kingdom**

$\approx \frac{400}{30} \approx 13$
 Argentina density = $\frac{400}{28}$ Canada density = $\frac{34}{10} \approx 3.4$
 Austria density = 100 Pakistan density = $\frac{1700}{8} \approx 200$
 UK density = $\frac{6200}{24} \approx \frac{6000}{20} \approx 300$

(c) Which of these countries had a population density that is approximately 4 times the population density of Canada? You must show all your working. [2]

Argentina density = $\frac{400}{28} \approx \frac{400}{30}$ $3 \overline{) 13.3}$ $3 \overline{) 40.0}$

Canada density = 3.4 $\begin{array}{r} 3.4 \\ \times 4 \\ \hline 13.6 \end{array}$ $13.3 \approx 13.6$

Argentina

2. The area of the land covered by the three villages is 200 km².
The total population of the three villages is 8400 people.

- (i) What is the population density of the three villages?
Give your answer in population/km².

[2]

$$= \frac{\text{population}}{\text{area}} = \frac{8400}{200} = \frac{84}{2} = 42$$

$$\underline{\underline{42 \text{ population / km}^2}}$$