

Retirement to Paradise

From Population data alone

A – 1,366,718,000
B – 158,571,000
C – 138,740,000
D – 61,017,000
E – 21,767,000
F – 21,284,000
G – 4,692,000
H – 3,536,000

Alison should live in A because it has the largest population.

Charlie should live in H because it has the smallest population.

From population and land area

Calculating population density (population divided by sq km)

A – 142.4
B – 1001.2
C – 8.1
D – 202.4
E – 2.8
F – 389.7
G – 14.4
H – 54.1

Alison should live in B because it has the highest population density

Charlie should live in E because it has the lowest population density

Based on further data

You could calculate:

A) Urban population density

E.g. A: $(1,366,718,000 \times 0.48) / (9,596,971 \times 0.02)$

Alison will want to live in the country with the highest urban population density.

B) Non-urban, habitable population density

E.g. A: $(1,366,718,000 \times 0.52) / ((9,596,961 \times 0.98) - 1,919,932)$

Charlie will want to live in the country with the lowest non-urban population density

The calculations are below

	Population	Land Area	% in urban	% urban land	Uninhabitable	Urban density	Non-urban density
A	1366718000	9596961	0.48	0.02	1919392	3417.9	94.9
B	158571000	143998	0.29	0.045	14400	7096.6	914.5
C	138740000	17098242	0.74	0.015	854912	400.3	2.3
D	61017000	301340	0.67	0.017	3013	7980.3	68.7
E	21767000	7741220	0.88	0.003	5418854	824.8	1.1
F	21284000	54610	0.14	0.023	13653	2372.4	461.1
G	4692000	323802	0.82	0.0014	226661	8487.2	8.7
H	3536000	65300	0.62	0.0088	3265	3815.1	21.9

Based on this, Alison would prefer to live in G (just ahead of D and B), and Charlie would prefer to live in E (just ahead of C and G)

Other data that might be useful for them to know

- Nature of the terrain
- Weather/climate
- Language spoken