

LAND AND SEA STATISTICS

The surface of the Earth	Surface area km ²	Percentage Surface Area
Saltwater	352,103,700	69.03
Freshwater	9,028,300	1.77
Good land for farming	44,682,307	8.76
Mountains	29,788,205	5.84
Land covered by snow	29,788,205	5.84
Dry land	29,788,205	5.84
Land with no topsoil	14,894,102	2.92

The table gives data on the land and sea covering the Earth's surface.

(1) Explain how the percentage 69.03% of saltwater that makes up the Earth's surface is calculated from these figures.

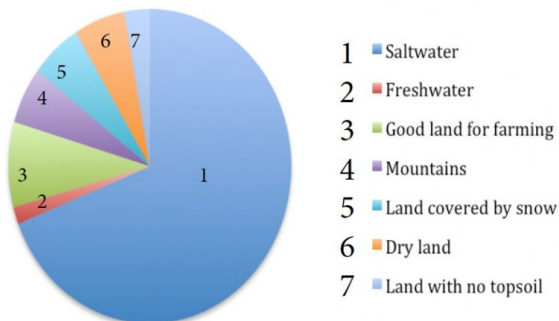
(2) How would you use this percentage to find the angle for saltwater for drawing a pie chart?

A pie chart and a frequency bar chart are given below.

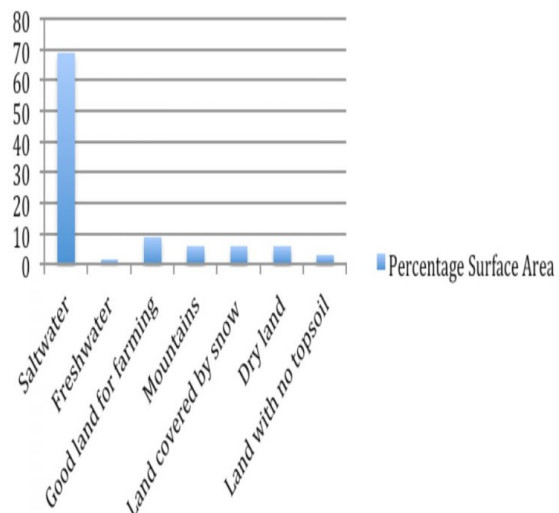
(3) Which of the charts gives the best representation of the information in the table? Why?

(4) What can we learn from these statistics?

Percentage Surface Area



The Surface of the Earth



(5) What is the land like around where you live? What is it like in the rest of your country?

How does it affect your lives?

How does it affect economic development in your country?

This was originally a lesson option organised by the [Bubbly Maths](https://www.bubblymaths.com/) team for the Biggest Ever Maths and Science Lesson attempt to break the Guinness World Record.

HELP

First work out the actual total surface area.

To find the percentage of the earth's surface covered by saltwater:

divide 352 103 700 sq km by the total surface area of the earth and multiply by 100.

(Note: the question does not ask anyone to do the calculation, just to say how it should be done.)

The next question is about the angle for the pie chart. The angles for the 7 sectors must add up to 360° and the angles must correspond to the percentages of each type of land.

NEXT

The table shows the percentages of land area, and percentages of total world population. Draw a double frequency bar chart to compare the two sets of figures.

Continent	Percentage of Total Land Area	Percentage of Total Population	Most populous city (disputed)
Africa	20.4%	15%	Lagos, Nigeria
Antarctica	9.2%	0%	McMurdo Station, US
Asia	29.5%	60%	Shanghai, China
Australia	5.9%	0.4%	Sydney, Australia
Europe	6.8%	11%	Moscow, Russia
North America	16.5%	8%	Mexico City, Mexico
South America	12.0%	6%	São Paulo, Brazil

The statistics for the world's biggest city are disputed (see Wikipedia references). Which of the following do you think best defines 'biggest city' and why?

- biggest land area;
- biggest population;
- biggest conurbation including other districts in the immediate area;
- another interpretation.