



Problem of the Week

Problem B and Solution

Olympic Proportions

Problem

Olympic Games are held every two years, alternating between summer and winter Olympics. For example, Rio de Janeiro held the Summer Olympics in 2016, while Pyeongchang, South Korea will host the Winter Olympics this month.

- Using the website <https://www.olympic.org/olympic-games>, make a list of all the countries which have hosted Olympic games from 1994 to 2016.
- Look up the number of countries on each continent. Then complete the table below to demonstrate the fraction of countries on each continent which have hosted Olympic games.

Continent	No. of Countries	No. of Host Countries	Fraction (%) Hosts/Countries
Asia	47	3	$\frac{3}{47}$ (6.4%)
Europe	43	4	$\frac{4}{43}$ (9.3%)
N. America	23	2 (3)	$\frac{3}{23}$ (13.0%)
S. America	12	1	$\frac{1}{12}$ (8.3%)
Australia	14	1	$\frac{1}{14}$ (7.1%)
Africa	54	0	$\frac{0}{54}$ (0%)

- If you were trying to distribute hosting countries evenly, which continent should be next to host either games? Justify your choice.

Solution

- Host countries are as follows:

1994 Lillehammer, Norway 2002 Salt Lake City, USA 2010 Vancouver, Canada
1996 Atlanta, USA 2004 Athens, Greece 2012 London, UK
1998 Nagano, Japan 2006 Turin, France 2014 Sochi, Russia
2000 Sydney, Australia 2008 Beijing, China 2016 Rio de Janeiro, Brazil

- See the completed table above. Source <http://www.enchantedlearning.com/geography/continents/Extremes.shtml>
- Ideally, Africa should host; however, both the hot climate and a lack financial resources work against this.
Given the percentages of host countries on each continent, Asia should be the next host (which is to happen in Pyeongchang, Korea).

