

Mathematics 30-2

Mathematics Research Project

Sample Task Difficulty Ratings and Research Support

Statistics in Sport

- Difficulty of Research - Easy
- Difficulty of Analysis - Easy
- Potential Mathematics - Graphing Relations, Measures of Central Tendency, Outliers

Research Support

- NHL Salaries: nhlnumbers.com
- NHL Statistics: www.nhl.com
- Similar statistics are available for most major professional sports.

World Population Growth

- Difficulty of Research - Easy
- Difficulty of Analysis - Medium
- Potential Mathematics - Exponential Functions, Regression Analysis

Research Support

- Wikipedia's analysis of world population growth: http://en.wikipedia.org/wiki/World_population
- A world population counter: <http://www.worldometers.info/>

Minimum Wage vs. Unemployment

- Difficulty of Research - Medium
- Difficulty of Analysis - Easy
- Potential Mathematics – Graphing and Interpreting Relations

Research Support

- An article that supports the one provided in the student task:
<http://online.wsj.com/article/SB10001424052970203440104574402820278669840.html>

Alberta License Plates

- Difficulty of Research - Medium
- Difficulty of Analysis - Medium
- Potential Mathematics - Permutations and Combinations

Research Support

- History of license plate issues in Alberta:
http://en.wikipedia.org/wiki/Vehicle_registration_plates_of_Alberta

Grade Inflation

- Difficulty of Research - Hard
- Difficulty of Analysis - Medium
- Potential Mathematics - Statistics, Regression Analysis

Research Support

- A site that is probably not impartial: <http://www.gradeinflation.com/>
- An article about the subject:
<http://economix.blogs.nytimes.com/2011/07/14/the-history-of-college-grade-inflation/>

Post-Secondary Tuition

- Difficulty of Research - Medium
- Difficulty of Analysis - Medium
- Potential Mathematics - Data Analysis, Regression Analysis

Research Support

- Statistics Canada Stats: <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/educ50a-eng.htm>

Cost of Owning a Home

- Difficulty of Research - Medium
- Difficulty of Analysis - Medium
- Potential Mathematics – Finance, Compound Interest, Property Tax

Research Support

- Current Property Values - <http://www.mls.ca>
- Historical Canadian Mortgage Rates - <http://www.ratehub.ca/mortgage-rate-history-canada>
- Edmonton Home Values Since 1962 - <http://www.chrisdavies.ca/2008/07/edmonton-historical-price-trends-since-1962/>

Golf Clubs

- Difficulty of Research - Easy
- Difficulty of Analysis - Medium
- Potential Mathematics – Trigonometry, Quadratics

Research Support

- Club Loft Table - <http://www.vaughns-1-pagers.com/sports/golf-club-data.htm>

****Note:** All the links provided in this resource are for convenience only; AAC does not guarantee the content or accuracy of the sites. **Please preview sites for availability and content before directing your students to use them.**