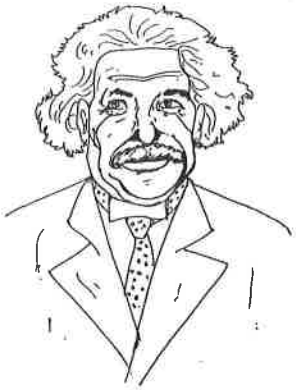
Name Project Due Date

STUDENT GUIDE 11.1

A Great Mathematician



Albert Einstein

Situation/Problem

You are to select a mathematician and research his or her life and contributions to mathematics. When you are done, you are to write a report summarizing your research and provide an oral presentation to the class.

Possible Strategies

1. Select a mathematician who has done work on a topic in which you are interested.
2. Consult reference books, biographies, and online sources to find information about your subject.

Special Considerations

- Focus your research efforts on your subject's life, background and education, and contributions to math. Ask yourself how those contributions benefited other mathematicians or people in general.
- Take accurate notes, and record your sources on your notes.
- Include examples that demonstrate or highlight some of your mathematician's contributions. Consider equations, illustrations, figures, or examples of problems.
- When writing your report, be sure to include an introduction, a body with main ideas and supporting details, and a conclusion.
- Offer your opinion. Was this person a great mathematician? Or was he or she overrated? Explain your answer.
- Be sure to include complete bibliographical information for both print and online sources. Consult your English text or an author's stylebook for the correct format.

A Great Mathematician *(Cont'd.)*

- When planning your oral presentation, prepare an outline and provide background information on your mathematician, but focus most of your presentation on his or her contributions to math. If possible, offer examples.

To Be Submitted

1. Your report
2. Your notes
3. The outline of your presentation

Rough Notes

Name _____

DATA SHEET 11.2

Math Greats

Following are some of the men and women who have made significant contributions to the advancement of mathematics. There are many more. The list notes the nationality and areas of major accomplishments of these men and women. Choose a mathematician based on your last name.

Last names that start with A-M

Abel, Niels (1802–1829), Norwegian; algebra
Ahmes (about 1650 B.C.), Egyptian; geometry
Aiken, Howard (1900–1973), American; computers
Al-Khowârizmî, Muhammed (about 780–850), Arabian; algebra
Archimedes (287–212 B.C.), Greek; algebra, calculus, pi
Aristotle (384–322 B.C.), Greek; logic, geometry
Celsius, Anders (1701–1744), Swedish; measurement
Copernicus, Nicolaus (1473–1543), Polish; trigonometry
Cray, Seymour (1925–1996), American; computers
Descartes, René (1596–1650), French; coordinates
Dodgson, Charles L. (Lewis Carroll, 1832–1898), English; logic
Einstein, Albert (1879–1955), German; geometry, infinity
Escher, Maurits Cornelis (1898–1971), Dutch; geometry
Euclid (about 365–300 B.C.), Greek; geometry
Fahrenheit, Gabriel (1686–1736), German; measurement
Fermat, Pierre de (1601–1665), French; number theory
Gauss, Carl Friedrich (1777–1855), German; geometry, number theory

Last names that start with N–Z

Germain, Sophie (1776–1831), French; symmetry
Hypatia (370–415), Greek; conic sections
Kovalevsky, Sonya (1850–1891), Russian; number theory
Leibniz, Gottfried (1646–1716), German; logic, calculus
Leonardo da Vinci (1452–1519), Italian; geometry
Murasaki, Lady (about 978–1031), Japanese; combinations
Napier, John (1550–1617), Scottish; computers, decimals
Newton, Sir Isaac (1642–1727), English; algebra, calculus
Noether, Emmy (1882–1935), German; algebra
Oresme, Nicole (1323–1382), French; functions
Pascal, Blaise (1623–1662), French; algebra, computers
Ptolemy, Claudius (about 85–168), Greek; trigonometry
Pythagoras (about 585–507 B.C.), Greek; geometry
Romanujan, Srinivasa (1887–1920), Hindu; algebra
Venn, John (1834–1923), English; sets
Von Neumann, John (1903–1957), Hungarian; computers