Suggestions for Paper Topics

1. A brief biography of a famous mathematician you've never heard of before.
2. Trace the origin of a generally recognized subfield of mathematics (eg. group theory, topology, non-Euclidean geometry, graph theory, Fourier analysis, the Calculus of Variations, etc.). What problems was it developed to address? (See #3 below.)
3. Trace the origin of some specific mathematical concept (eg. -1, 0, ), the function, the matrix, the manifold, the vector, the differential, the group, the integral, etc.).
4. Find the origin and trace the history of the Fields Medal.
5. What are Hilbert's 23 problems? Why are they important?
6. Trace the use of Euclid's Elements in western mathematics education.
7. Trace the development and use of calculation aids and their effect on mathematics (eg. counting boards, abaci, trig and log tables, slide rules, computers, hand held calculators, etc.).
8. The invention of Calculus is generally credited to Newton and Leibniz. But several mathematicians developed theories that anticipated Calculus in one way or another. Describe one or more of these 'near misses'.
9. Trace the role of women in western mathematics.
10. Describe the role and nature of mathematics during a specific historical period.
11. Trace the development of a recognized field of mathematics from its inception to the present. (See #2 above.)
12. Different number bases have been used by different cultures throughout history. When? By whom? Why?
13. Much of the 'history' of mathematics is really a history of the Western European approach to math. Trace the development of mathematics in a non-western culture (eg. in China, in India, in the Americas, or in Africa before western colonialism.
14. Trace the effect of computer technology on mathematics.
15. Pick a problem that took a long time to solve or which is not yet solved (eg. Fermat's Last Theorem, the Four Color Conjecture, the Poincare Conjecture, the Goldbach Conjecture, the Twin Prime Conjecture, the Riemann Hypothesis, The Double Bubble problem, solution of the cubic, etc.) and trace its history and the various attempts to solve it.
16. What role did war play in the development of mathematics?
17. What role did mathematics play in the development of war?
18. What is the relationship between mathematics and philosophy?
19. Is mathematics a science? What is the relationship between mathematics and the sciences?
20. How is longitude computed?