

This test covers all material covered in the course with more emphasis on the material since the 2nd test. Use the topics lists for test 1 and test 2 for that material. The following topics are only post-test 2 material

Math:

1. Alternatives to Euclid's 5th postulate, triangle angle sum and area, cf. problems 15.1-15.4.
2. Graph theory, in particular Euler circuits (finding and showing why an odd vertex means no Euler circuit).
3. Computation of probability, including use of complementary probability and conditional probability, as illustrated by problems 10.15, H11, H12.

History:

1. Euclid's 5th postulate: History of attempts to prove it.
2. History of the 4-color problem
3. Gauss' contributions to mathematics and his influence.
4. History of Fermat's Last Theorem
5. History of solution of polynomial equations