

H_p countries each adjacent to all the others. Therefore no number smaller than H_p is sufficient to color every map on such a surface. Their announcement of this is the paper mentioned above. The similar question concerning non-orientable surfaces with $p > 1$ was settled a number of years ago by Gerhard Ringel.

The case $p=0$ (the sphere) is still not solved. The four color problem itself remains open.

*James A. Hummel
Professor of Mathematics
University of Maryland
College Park*

By referring to PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES, June 1968, p. 438, please note that in the very first sentence of our paper we stated that we have "nothing new to add" to the matter. Moreover, at the conclusion of the fourth paragraph, we stated the classical question, "Does $m=4$?" and added that "no one knows the answer."

We did announce that the "Heawood conjecture is settled in the affirmative"; the Heawood conjecture is not the four-color conjecture.

Finally, our "History of the Solution," starting on p. 440, makes it clear that many mathematicians were involved in the solution. Ringel and I completed the problem by solving cases 2, 8 and 11.

If you wish to report the true state of affairs in popular parlance, you may state that the map-coloring problem has been solved for all surfaces except the sphere.

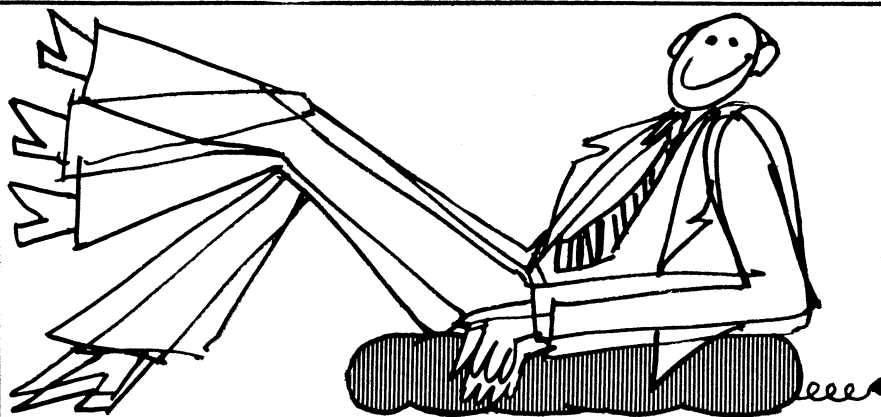
*J. W. T. Youngs
Division of Natural Sciences
University of California
Santa Cruz*

No guarantee

Sir:

Being intelligent is no guarantee against being stupid. My apologies to Miss Stephanie Rifkinson and any other SN reader who may have wondered where in the world MENSA information can be obtained. Having neglected to include this vital information in my letter of 7/13, I hasten to rectify my oversight herein. For information and details on application for membership in

(see Letters, p. 336)



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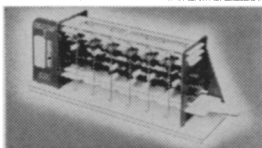
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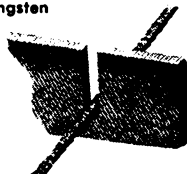
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films OF THE WEEK

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CHANGING THE WEATHER. 16mm, color, sound, 29 min. Review of research which is being conducted to study clouds and air currents and the ways these affect local weather conditions. Several studies are depicted, including investigations of the composition of clouds, effects of different temperatures on air currents, the composition of particulate matter in the atmosphere, and the ways in which this matter triggers rain or snow formation. Audience: senior high, college, adult. Purchase \$240 from NET Film Service, Indiana University, Audio-Visual Center, Bloomington, Ind. 47401.

COMPOSITES, 16mm, b&w kinescope, sound, 30 min. Introduces the history of composites, from the ancient use of straw in bricks to the sophisticated materials of the present age; e. g., those consisting of aligned boron filaments suspended in an epoxy resin matrix. Describes how the materials may be made and how they may be adapted to a variety of industrial needs. Special application of composite materials in the design and fabrication of rotor blades for helicopters is discussed. Audience: scientists and engineers in industry, general audience with technical background. Purchase \$100 or rental \$6.10 from Audio Visual Services, The Pennsylvania State University, University Park, Penna. 16802 (Inquire for price of video tape version).

GROWING UP SAFELY. 16mm, color, sound, 25 min. Statistics show that approximately one-half of all children who die between the ages of one and fifteen years die as the result of accidents. Film shows how effective accident prevention training for children can be based on the simple rule-of-thumb pattern of correlating safety training with the child's level of development, and suggests suitable approaches to teaching the child to assume responsibility for his own safety. Audience: parents, teachers. Purchase \$300 from McGraw-Hill Films, Dept. DF, 330 West 42nd St., New York, N. Y. 10036.

THE HIDDEN WORLD: A STUDY OF INSECTS. 16mm, color, or b&w, sound, 24 min. Reveal study of the color and drama of insect life. Audience: intermediate grades through adult. Purchase color \$296 or b&w \$151 from Encyclopaedia Britannica Educational Corporation, 425 North Michigan Ave., Chicago, Ill. 60603.

LOCI I. 16mm, b&w, sound, 20 min. A locus may be defined either as a set of points satisfying some law or as the path of a point which moves according to some law. Shows a number of loci being constructed and discusses their description in words and symbols. A familiar locus is that of a point equidistant from two fixed lines, and this is illustrated graphically. Audience: high school, college. Purchase \$120 or rental \$12 from Peter M. Roebeck and Company, 230 Park Ave., New York, N. Y. 10017. (A BBC-TV Production).

LOCI II. 16mm, b&w, sound, 20 min. The parabola, normally described algebraically, has no simple means of describing it geometrically. The properties of a circle are mainly implicit in the method of drawing a parabola. Purpose of film is to tie together the geometrical and algebraic approach and to examine, side by side, the equations of the circle and the parabola. Construction of a parabola is shown by considering it both as a locus and as an envelope. Audience: high school, college. Purchase \$120 or rental \$12 from Peter M. Roebeck and Company, 230 Park Ave., New York, N. Y. 10017 (A BBC-TV Production).

Letters from p. 335

MENSA, write American Mensa Selection Agency, P.O. Box 86, Gravesend Station, Brooklyn, N.Y. 11223. Information about MM may be obtained by writing MM 16-64th Place, Long Beach, Calif. 90803.

Anne E. Carr
New York, N.Y.

The needed effort

Sir:

You know of my keen interest in the subject of thermal effluents from electric power plants (SN: 8/17, p. 164). The information provided will be useful resource material for me and my staff. It is good to know that journalists such as yourself are making the needed effort to inform and explain to the public the ramifications of these environmental problems our nation faces today.

(Senator) Joseph D. Tydings
Washington, D.C.

Metric shift

Sir:

Thank you for printing my letter ("Shift to Metric," Letters, SN: 5/25).

Having been away this summer on a grant to study more physics, I was not aware of the response until quite recently. Needless to say, the letters to the editor (SN: 7/6) in response were most gratifying. I also heard from some of the correspondents directly, and have become a member of the Metric Association.

Now that the bill calling for a study on such a switch has been signed into law, perhaps we can soon get on with it.

Peter E. Roohr
Wisconsin State University
Superior

Address communications to Editor,
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