Noesis

The Journal of the Titan and Mega Societies
(Issue 21, December 1987)

Editorial

Ronald K. Hoeflin
P. O. Box 7430
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The Mega Society: Noesis is now the journal of both the Titan and Mega societies, as indicated above. My letters to Mega members and to the Encyclopedia of Associations on this point are reproduced on the following two pages. I incorrectly state in the first paragraph of my letter to Mega members on the following page that S. Woolsey informed me that the Mega Society has not had a newsletter in "over a year." Actually, I notice that in his letter to me of September 20, 1987, S. Woolsey says that "No one has mailed me a Megarian since May of 1987," which I must have construed as "May of 1986." But I believe the May 1987 issue may have been the only issue published for the Mega Society in the past year or more. Marilyn vos Savant phoned me after receiving my letter to Mega members and endorsed my move to resume control over the Mega Society. As Mega's Administrator, she had previously sought for me to edit the Megarian, but I had declined, primarily for two reasons: (1) the Mega membership has become bloated with far more people than it ought to have, given its rarefied one-in-a-million requirement--about 27 members at last count, and (2) there were some members of the Mega Society with whom I did not wish to have further dealings, notably Kevin Langdon, who got into the society under false pretenses and then proceeded to treat me in a highly abusive manner. His letter to Titan members a month or two ago is an illustration. I also received a note of endorsement from another Mega member, Phil Bloom, who is the designer of the Bloom Analogies Test, a high-ceiling verbal analogies test, and who is an amateur expert in psychometrics. Phil wrote: "I am glad you stuck-to-your-guns on the Mega test norming despite strong ego-backlash. You are perfectly justified in establishing whatever cut-off you wish, especially since the data seems to support it. You are of high integrity. Hope it is appreciated!" Before I conclude this paragraph, I should note that S. Woolsey's name was incorrectly given as S. W. Woolsey in the September 1987 issue of Noesis. There is no middle initial "W." in his name.

The Prometheus Society: On pages 4-5 of this issue I reproduce a statement I have submitted for publication in the Prometheus Society's journal, Gift of Fire, in which I seek to have the admission requirement of that group reduced from the 99.997 percentile or one-in-30,000 level (a raw score of 36 on the Mega Test) to the 99.99 percentile or one-in-10,000 level (a raw score of 33 on the Mega Test). Once that has been accomplished, then the Titan Society's cut-off can be reduced from the 99.9995 percentile or one-in-200,000 level (42 on the Mega Test) to the 99.999 percentile or one-in-100,000 level (40 on the Mega Test). This would yield a better spacing of the high-IQ societies, as I indicate in the letter. I also reproduce a three-page essay I wrote on high-end skew, which I have also submitted for publication in the Prometheus journal (see pages 6-8 of this issue of Noesis).

(continued)

The Highest 200 Mega Test Scorers: I was interested in comparing the performance of the highest 100 Mega Test scorers with that of the next-highest 100 on the verbal and non-verbal parts of the test. Graphs of this data are provided on page 9 of this issue.

Questionnaire Responses: Two more members of Titan have completed and returned the questionnaire that was included in issue 19 (October 1987) of Noesis. They will appear on pages 10-11 of this issue.

Computer Bulletin Board for Titan Members: Chris Cole has told me by phone that he will be sending me a page of information about his new computer bulletin board for Titan members. This will be included on page 12 of this issue.

October 31, 1987

Ronald K. Hoeflin
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(212) 582-2326

David T. Reid, Research Assistant
Encyclopedia of Associations
c/o Gale Research Company
Book Tower
Detroit, MI 48226

Dear Mr. Reid:

The Mega Society, which I founded about 5 years ago, has become moribund over the past year or two after I turned the administration of the group over to others. I have therefore declared the old Mega Society defunct and am reviving it under the same name, with myself as the sole executive officer. The attached letter to Mega Society members explains the situation briefly.

I would suggest that your entry for the Mega Society in the Encyclopedia of Associations be rewritten roughly as follows:

Executive Officer: Ronald K. Hoeflin, Ph.D.

The Mega Society is a high-IQ society with a minimum requirement at the one-in-a-million level (the 99.9999 percentile). Admission is currently based solely on the Mega Test, a self-administered intelligence test available free of charge from the Executive Officer. (The scoring fee is $25.00.) The Mega Society has recently been restructured and now has just 2 members. The Society will therefore share the Titan Society's monthly journal, Noesis, until it becomes large enough to sustain its own journal again. The Titan Society's admissions test, the Titan Test, will serve as an alternative admissions test for the Mega Society for those who fail to qualify on the Mega Test. The fundamental goals of the Mega Society are camaraderie among extremely gifted adults and greater insight into the nature of extremely high levels of intelligence.

Please do not list the 501 and the 606 societies as predecessors of this new Mega Society.

Sincerely,

Ron Hoeflin

October 31, 1987

Ronald K. Hoeflin
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To Members of the Mega Society:

I understand from S. Woolsey that The Megarian has not been published in over a year. Marilyn vos Savant, your Administrator, has not been administrating, at least to an extent sufficient to keep the Mega Society going. A letter I sent to her "Cameo Enterprises" address in St. Louis was returned due to the lack of any forwarding address. Marilyn has also mentioned to me in the past that she ignores most inquiries to the Mega Society, and that she is often more than a year behind in answering her mail.

As the founder of the Mega Society, I am therefore declaring the old Mega Society defunct and reviving the idea under the same name, with myself as editor, membership officer, treasurer, and administrator.

All those who wish to be members must now reapply by taking my Mega Test, if you have not already done so, or my new Titan Test, which will be available for distribution in a few months. On my Mega Test only scores of 45 or above out of a possible 48 are sufficient for membership at present. If you have not or can not meet that standard, you are welcome to become a non-member subscriber. (But this offer does not include Kevin Langdon, who is not eligible to become either a member or a non-member subscriber.)

The new Mega Society now has just two members: Marilyn vos Savant and Eric Hart. The Mega Society is thus too small to sustain its own newsletter and will therefore share the Titan Society's newsletter, Noesis, which I have been publishing every month for the past 20 months, until it becomes large enough to sustain its own newsletter. (Titan has a 5 per million standard--42 on the Mega Test.)

Subscriptions to Noesis are currently $10 per annum (from January to December) or $5 per semi-annum (from July to December). Back issues are available. The newsletter has ranged from 4 to 24 pages in length, but lately I have tried to keep it in the 8 to 12 page range.

The Mega Society's constitution is hereby suspended, needless to say. It did not serve its purpose, since the Mega Society became defunct despite its existence.

You may contact me if you want a copy of the Mega Test or a sample copy of Noesis. The new Titan Test will be published in Noesis when it has reached completion, so do not ask for it. It is very similar to the Mega Test, except that it is multiple-choice in format.

If anyone objects to my action in reviving the Mega Society, feel free to revive the old Mega Society. But I shall continue to use the name "Mega Society" until ordered by a court of law not to do so. And I shall not refer anyone through my tests to the old Mega Society.

If anyone has any questions, feel free to write or phone me.

Sincerely,

Ron Hoeflin

A Proposed Amendment to the Prometheus Constitution

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According to Article VIII of the Prometheus Constitution (issue 19 of Gift of Fire, page 11):

2. At any time, any member may propose a vote amending this constitution or directing any officer or the officers in general to implement any policy.

3. The Editor shall print all proposals to vote on society business, exactly as received, in the newsletter, provided such proposals do not exceed two pages in length, in which case the Editor may exercise his or her judgment in how to proceed in bringing the matter before the membership.

4. At least one issue of the newsletter shall intervene between the publication of any proposal and the official call for a vote on the proposal, to allow time for comment by the membership.

5. Proposals shall be adopted by a majority of the votes cast except as otherwise provided in this constitution.

And Amendment XI (see page 14 of issue 19) states:

1. A member may propose an amendment to the constitution by submitting the proposed amendment for publication in the newsletter.

2. An amendment is approved upon receiving two-thirds of the votes cast.

Now I would like to amend Article III, Section 2 of the Prometheus Constitution (page 8 of issue 19), which currently reads as follows:

2. Membership in the Prometheus Society is open to anyone who can produce satisfactory evidence of having received a score on an accepted IQ test that is equal to or greater than that received by the highest one thirty thousandth of the general population. An accepted IQ test is defined as an IQ test that the Society has determined to be acceptable for admission purposes.

I want to change the stated requirement from "one thirty thousandth" to "one ten-thousandth (the 99.99 percentile)".

My reasons can be summarized as follows:

1. Most Prometheus members were admitted on the basis of a score of 33 or better on my Mega Test, a score which, according to my fourth and most realistic norming of the test, corresponds to the one-in-10,000 level or 99.99 percentile. (My fourth norming appeared in issue 23 of Gift of Fire, pages 12-16.)

2. The Prometheus Society was originally called the Xenophon Society because it was my original intent to have a one-in-

10,000 admission standard. Xenophon was, of course, a Greek general who led an army known as the Ten Thousand. The change in the name and the cut-off were occasioned by previous normings of the Mega Test that cast doubt (erroneously, I now believe) on the one-in-10,000 standard I had initially adopted. I do not propose that we adopt the name "Xenophon" again, since "Prometheus" seems to have more inspiring connotations. But adopting the one-in-30,000 standard is relatively less imaginative, since it makes us appear to be a mere clone of the defunct Four Sigma Society.

3. The one-in-10,000 standard would also allow for a better spacing of the various high-IQ-society cut-offs, aside from being a more realistic estimate of the cut-off we have been using through most of our history. Here are how the cut-offs are spaced now and would be spaced if my proposal is adopted:

	(Current)	(Proposed)
Triple Nine	99.9 (24 on the Mega Test)	99.9 (24 on Mega)
Prometheus	99.997 (36 on Mega)	99.99 (33 on Mega)
Titan	99.9995 (42 on Mega)	99.999 (40 on Mega)
Mega	99.9999 (45 on Mega)	99.9999 (45 on Mega)

4. If none of the foregoing arguments strike you as persuasive, I ask you to vote for the change in the Prometheus cut-off from the 99.997 to the 99.99 percentile simply out of respect for me as the founder of this Society.

5. Finally, it should be noted that the technique that I used to determine the 99.99 percentile on the Mega Test, as reported in the fourth norming of the test in issue 23 of Gift of Fire, can be applied to other tests, using data I have accumulated, so that my proposed 99.99 percentile cut-off can be applied equitably to all intelligence tests accepted by the Prometheus Society.

Sincerely,
Ronald K. Hoeflin

A Comment on "High-End Skew"

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I would like to comment on Kevin Langdon's remark in issue 26, page 10 of Gift of Fire concerning the relationship of the distribution of IQs to the normal distribution curve. He writes:

> Patrick [Hill] speaks of a 'bump' in the distribution of I.Q. scores at or near the four sigma level. My reading of the literature suggests rather that there is a progressive tail fattening as one goes up the scale, starting at the third standard deviation or below and reaching an order of magnitude or more at very high I.Q. levels.

By way of clarification, I would like to point out that any distribution of raw scores can be mapped into a normal curve by simply assigning the appropriate I.Q.s or standard deviations to each raw score. For example, if you allow 16 I.Q.points per standard deviation, then, for a random sampling of the general population, the raw score that is at the 84th percentile would be assigned to 1.0 standard deviations above the mean or 116 I.Q., the raw score that is at the 98th percentile would be assigned to 2.0 standard deviations above the mean or 132 I.Q., the raw score that is at the 99.87 percentile would be assigned to 3.0 standard deviations above the mean or 148 I.Q., and so forth. Almost any statistics book will have a fairly detailed table for equating standard deviations on a normal curve with percentiles.

For standard intelligence tests the sampling of the general population on which the equivalences between raw scores and I.Q.s are based generally consists of about 3,000 individuals, which means that this mapping method to fit raw scores to a normal curve will not work effectively above about the 99.9 percentile. One could calculate a standard deviation for the sample which might yield, say, 20 raw score points per standard deviation, and then simply extrapolate using this equivalence for ever-higher scores, e.g., one could assume that the 4.0 standard deviation level is 20 raw score points higher than the 3.0 standard deviation level. The "thickening" in the high-end tail to which Kevin refers amounts to the fact that this sort of extrapolation does not work very precisely, namely, theoretically only about one-thirtieth of those who score above 3.0 standard deviations should score above 4.0 standard deviations, whereas practically the ratio is found to be more like one-tenth, meaning that about three times as many people reach or exceed the 4.0 standard deviation level as ought to if the normal curve were in effect.

But the mapping method could, of course, be applied at the 4.0 standard deviation level if only one had a norming sample from the general population of 100,000 or more, so that exactly (or almost exactly) one person in thirty thousand would be assigned an I.Q. of 164 or more.

The point to bear in mind, then, is that the thickening in the curve above 3.0 standard deviations can be regarded as an artifact resulting from the failure of the test designer to include enough problems of very high difficulty in his test. One could, in theory, select problems in advance so that they would produce a normal curve for any random sampling of the general population that attempted them. Or, to put it another way, one could include, say, 500 problems in the test and then, after the test has been attempted by a million people

or so, simply whittle away at the test, eliminating problems that tend to yield a distribution that differs from the normal curve.

To find out if assortive mating alters the distribution on the test, wait ten generations and then test another million people on the problems that were left after the first whittling process was completed. The result should be a thickening in the upper tail of the test compared with the normal distribution that one artificially created ten generations earlier.

I say "artificially created" because there is no a priori reason why one set of problems should be included in a test rather than another. Measuring I.Q. is not like measuring height or weight, where each additional problem adds one additional unit of intellectual stature, so to speak. We can make the problems into units only by mapping them into a normal curve. Any "thickening" in the upper tail would then be revealed by samplings of future generations, who would, in effect, be being measured against the initial normal curve.

The extrapolation method cannot be used to support the contention that there has been a thickening due to assortive mating(or what not) because, as I mentioned earlier, this method ignores the possibility that the test designer simply has not chosen his problems wisely, e.g., has used too few problems of very high difficulty. Only cross-generational comparisons can support the assortive mating hypothesis.

I decided to see whether my fourth norming for the Mega Test supports the "steadily widening" hypothesis of Kevin Langdon or the "bump effect" hypothesis of Patrick Hill, at least for this norming of this test. Somewhat to my own surprise, the "bump effect" hypothesis appears to be the more accurate, both for the plotted and for the extrapolated curves (as shown in issue 23, page 14). For my sample of participants (after weeding out second attempts and cheatings, to the best of my ability), 788 people exceeded a raw score of 22.8, which according to my fourth norming is 3.0 standard deviations above the mean. Theoretically, 1350 people in a million exceed the 3.0 s.d. level for a normal curve, 577 per million exceed 3.25 s.d.'s, 333 exceed 3.5, 88 exceed 3.75, 32 exceed 4.0, 11 exceed 4.25, 3 exceed 4.5, and 1 exceeds 4.75. For my plotted curve, 788 people in my sample exceeded 3.0 s.d.'s, 488.8 exceeded 3.25, 311.3 exceeded 3.5, 221.4 exceeded 3.75, 136.5 exceeded 4.0, 76.9 exceeded 4.25, and 9 exceeded 4.5, the data being too skimpy to plot a point at the 4.75 standard deviation level. For the extrapolated curve the figures were the same as for the plotted curve except that 163 rather than 221.4 exceed 3.75 s.d.'s, 93.5 rather than 136.5 exceed 4.0 s.d.'s, 36.5 rather than 76.9 exceed 4.25 s.d.'s, and about 2.5 people are assumed to exceed the 4.75 s.d. level, which was put at a raw score of 45.

Thus, using the number of people who exceed 3.0 standard deviations as one's base line, one finds that for the plotted curve 1.45 times as many people scored above 3.25 s.d.'s on my test as would have been expected to on the basis of the normal curve, 1.60 times as many exceeded 3.5 s.d.'s, 4.31 times as many exceeded 3.75, 7.31 times as many exceeded 4.0, 11.42 times as many exceeded 4.25, and 5.14 times as many exceeded 4.5 s.d.'s as would have been expected to on the basis of the normal curve. For the extrapolated curve, the skew ratios are 1.45 at 3.25 s.d.'s, 1.60 at 3.5, 3.18 at 3.75, 5.00 at 4.0, 5.68 at 4.25, 5.14 at 4.5, and 4.28 at 4.75.

As one can see, the skew ratios first rise (corresponding to a "thickening" of the tail) but then decline (corresponding to a "thinning" of the tail), as is especially clear in the case of the extrapolated curve, which is my preferred norming of the test. So the skew does not become progressively worse at progressively higher IQ levels.

As an illustration, notice that 3 of each 1350 people who exceed 3.0 s.d.'s will be expected to exceed 4.5 s.d.'s, according to the normal curve. If the 788 people who scored above 3.0 s.d.'s on my test were the tail of a normal curve for the general population, the 4.5 s.d. level would be expected to be exceeded by 3/1350 times 788 of them, which works out to 1.75 people. The actual figure was 9 people, which is 5.14 times greater than the theoretical figure of 1.75.

But the 788 people who exceeded 3.0 s.d.'s on my test (not including pre-Omni participants) were actually the tail of a far-above-average sample with a median I.Q. of 141 rather than the general population's median I.Q. of 100. It is this above-average ability of my sample that accounts for most or all of the skew in the actual number of participants exceeding various standard deviation levels above 3.0 compared with the number who would have exceeded these levels based on a normal curve, since that "normal curve" is predicated on a median I.Q. of 100, not 141.

Without going into further detail, the key points to bear in mind are these: (1) high-end skew does not reach catastophic proportions but, at least for the fourth norming of the Mega Test, reaches a peak at about 4.25 standard deviations and then becomes progressively less severe; (2) the skew never reaches an order of magnitude (i.e., factor of ten) but peaks at a factor of 5.68, even when my abnormally high-ability sample is under consideration; and (3) the skew that was in fact discovered is almost certainly all or nearly-all the artificial byproduct of the above-average ability of the sample I was working with rather than of any inherent defect in my norming method.

Questionnaire

Your name (please print): JAMES D. HAJICEK

Age: 48 Marital status: M Number of children: 4

Memberships in other high-IQ societies:

	Current Member	Past Member	Never a Member
Mensa	✓		
Intertel			✓
Triple Nine	✓		
I.S.P.E.	✓		
Prometheus	✓		
Mega			✓

Amount of education (maximum):

- High school dropout ____
- High school graduate ____
- Some college ____
- Bachelor's degree(s) ✓
  - Major(s): PHYSICS
- One year of grad school, no degree ____
- Two years of grad school, no degree ✓
- Three or more yrs. of grad school, no degree ____
- Master's degree(s) ____
  - Major(s): ____
- Doctoral degree(s): ____
  - Major(s): ____

Current vocation(s): ENGINEER - EXPERT SYSTEM SOFTWARE

Previous vocation(s): ENGINEER - COMPUTER HARDWARE

Avocations (hobbies & interests): ____

Circle one: This information is CONFIDENTIAL (NOT CONFIDENTIAL)

Questionnaire

Your name (please print): Ray Wise

Age: 32 Marital status: M Number of children: 0

Memberships in other high-IQ societies:

	Current Member	Past Member	Never a Member
Mensa		✓	
Intertel			✓
Triple Nine		✓	
I.S.P.E.			✓
Prometheus		✓	
Mega			✓

Amount of education (maximum):

- High school dropout ____
- High school graduate ____
- Some college ____
- Bachelor's degree(s) ✓
  - Major(s): Industrial Engineering
- One year of grad school, no degree ____
- Two years of grad school, no degree ____
- Three or more yrs. of grad school, no degree ____
- Master's degree(s) ✓
  - Major(s): Computer Science
- Doctoral degree(s): ____
  - Major(s): ____

Current vocation(s): Sr. Software Engineer

Previous vocation(s): Truck Driver between semesters at college

Avocations (hobbies & interests): Competitive road running, Bridge, Backgammon, "Trial Tests"

Circle one: This information is CONFIDENTIAL (NOT CONFIDENTIAL)

Distribution of Scores for the Highest 105 Scorers vs. the Next Highest 121 Scorers on the Mega Test

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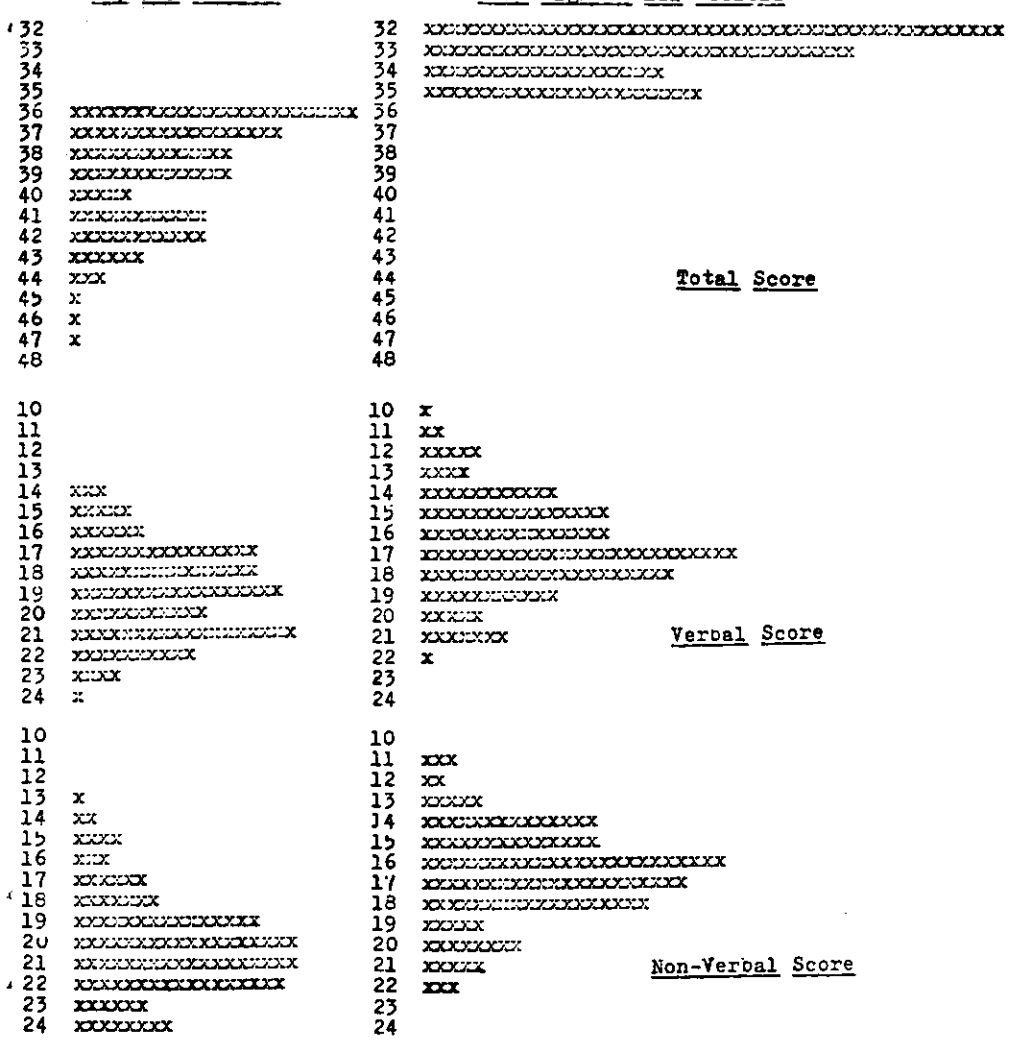

Chris Cole
P. O. Box 9545
Newport Beach, CA 92658-9545

Noetic Network

Noetic members can now access (via a local phone call) the UNIX computer at Peregrine Systems (where Chris Cole and Dean Inada work). This allows the members to correspond via electronic mail, read USENET network news, etc. Call Chris or Dean at 714-855-3923 to get a login ID and instructions for logging in.

USENET is a worldwide network of academic and corporate UNIX computers, which supports a wide variety of special interest newsgroups. Two groups which will be of interest to Society members are: rec.puzzles and sci.math. Problems posted to these two groups are usually quite challenging, and the network population of problem solvers usually makes short work of them. As an example, consider this list of letter series. The answers will be included in a future issue.

USENET rec.puzzles Letter Series Collection

1. M N B D P ...

2. H H L B 8 C N O F ...

3. W A J M M A J ...

4. A E H I K L ...

5. A EF HI KLMN T VWXY
   BCD G J OPQRS U

   now on which line will the 'Z' go, and why?

6a. G L M B C L M C F S ...
6b. A V R R C C L L L E ...

7a. S M S S S C P P P ...
7b. M S C P P P S S S ...

8. D P N G C M M S ...

9. R O Y G B ... (has two answers)

10. A T G C L ...

11. M V E M J S ...

12. A B D O P ...

13. A E F H I ...