## INSIGHT

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## BDITORIAL

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James Tetazoo, who was listed as a potential member in issue \#l of this journal, has agreed to join our group, bringine the total membership to eleven. James gave his age as just 14 when he took the Mega Test last year. I have no further biographical information about him. Perhaps he will favor us with a br autobiographical sketch. His address is now 3 Ames St., -É, MA 02139.

I now have received responses to my Trial Test "A", which feared in issue ${ }^{\#} 3$. from 39 Triple Nine and 6 Titan members. One participant was a member of both groups, so the total number of participants was 44 rather than 45 . The person who was a member of both groups apparentiy collaborated with another Triple Nine member, so I have omitted their performance on the chart on the following page, leaving 37 Triple Nine and 5 Titan participants. Triple Nine scores ranged from 4 to 40 , with a median of 24. Titan scores were $37,38,39,40$, and 42 . The second highest Triple Nine score was 36 , so Titan members outperformed all but one of the Triple Nine participants.

I continue not to count problems 33 and 35 , for which I am not sure of the correct answers yet, so that the maximum possible score is 44 rather than 48 . The non-verbal problems counted two points apiece and the verbal problems one point, bear in mind. It is clso barely possible that my solution to problem 34 is incorrect, since only one person came up with the solution I now consider correct. I may send the spatial problems in Trial Test "A" to other people who got perfect or near-perfect spatial scores on my Kega Test in order to pin down a correct solution.

I include in this issue an essay by Chris Cole which concludes with the suggestion that we change the name of this society. If you have any names to suggest or are satisfied with the present name, feel free to contact Chris.

I also include in this issue a brief essay by myself on "The Hardest Problem in the Mega Test."


WHITHER THE TITAN SOCIETY?
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Fot the first time in history, it may be possible to assemble a society of one hundred "one-in-a-million" geniuses. If history is a gujde. such a society would make significant contributions to knowledge and culture. The very possibility of forming surh a society is a compelling reason to try, and the Titan Society could be the start. However, several questions must be answered: Are Ron Hoeflin's tests valid indicators of the kind of genjus that makes significant contributions possible? Would the top minds want to join such a society? How would we recruit them?

Are Ron's tests just for puzzle fanatics? Aren't top minds too busy to spend time on something as nonproductive as solving puzzles? My experience with some of the top minds (e.g., Nobel laureates) suggests that they all spend a lot of time in nonproductive problem solving. On the other hand, they almost never spend their time on "puzzles" (such as make up the majority of intelligence tests) and they are rarely members of high-IQ socjeties. Ron's tests are different because Ron is different; Ron js at or near the "one-in-a-million" level and so are his tests. Standard intelligence tests are validated using statistics. The intended audience for Ron's tests are too scarce to use statistics; Ron had to use intuition instead of statistics. In short, yes, Ron's tests test for the right things.

Why would a topmind join the $T$ itan Socjety? Anyone needing an answer to this should read Feynman's recounting of his decision to stay at Caltech in his latest book, "Surely You're Joking, Mr. Feynman." He was walking across campus one day considering an offer from another unjversity. In the time it took him to cross the campus, several people ran up to him to tell him about the latest results in their fields. He decided once and for all that Caltech was the place for him. A society of one hundred of the top minds would provide a similar (even better) haven for its members. I don't think attracting them would be a problem.

How can we build the Titan Society into such a society? We need to build. up to a critical mass; after that word of mouth will ensure its growth. One idea is to advertise in selected journals; another is to solicit members through direct mail to alumni of prominent universities. Any such effort would require funding, which it may be possible to arrange through a nonprofit foundation (e.g., I may be able to interest the MacArthur Foundation). Any such solicitation would have to be immediately credible: one problem is the name of the Society. I think "Titan" is a bit grandiose. Perhaps something to go with "Insight" but preserve the classical flavor, like "Delphi"? l would like to hear ideas from the other members. My phone number is 714-8553923 (work) and 714-720-1761 (home).

## THE HARDBST PROBLEMS IN THE MBGA PBST

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There have been 3,616 responses to my Mega Test in the 16 months that have elapsed since it was published in the April 1985 issue of Omni magazine, where it was billed on the cover as "The world's Hardest IQ Test." The test instructions included the statement that "There is no enforceable time limit, but it is singested that you limit yourself to no more than one month." Despite this generous time allowance, the median score for all Omni participants was only 15 right out of 48 , as indicated in the follow-up report in the January 1986 issue of Omni.

Utilizing 187 previous $I Q$ test scores that pre-Omni volunteers reported to me when they attempted the test, I determined that the 99.9 percentile on my test occurs at a raw score of about 21.36 . Omni participants had a median performance at about the 99.5 percentile vis-a-vis the general population, while about $25 \%$--some 940 participants--exceeded the 99.9 percentile.

I decided to assume that 94 participants would exceed the 99.99 percentile, that 9.4 would exceed the 99.999 percentile, and that 0.94 would exceed the 99.9999 percentile (one in a million). Using rank percentiles, in terms of which those scoring, say, 36 right would be assumed to be spread evenly over the interval from 35.5 to 36.5 , I found that the 99.99 percentile occurs at a raw score of 35.7 , the 99.999 percentile at a raw score of 42.8 , and the 99.9999 percentile at a raw score of 46.6 .

For the 36 people who scored 40 or higher on their first attempts, only three problems were missed by more than half of these high scorers. Problems 20, 22, and 36 were each missed by 22 of these 36 participants.

Problems 20 and 22 are verbal analogies, and the "correct" solutions are therefore to some extent a matter of subjective opinion. But problem 36 is a spatial problem with an unambiguous solution. It reads as follows: "What is the maximum number of completely bounded volumes that can be formed by three interpenetrating cubes, considering only the surfaces of the cubes as bounds and counting only volumes that are not further subdivided?" I decided to analyze the percentage of participants who could solve this problem correctly at each scoring interval. The result was the accompanying tíbulation.

By dividing the scores into 6-point intervals, one can discern a fairly steady rise in the percentage of those who solved this problem correctly from 0.0 for those scoring 12 or less to $58.3 \%$ for those scoring 43 or more. Note that not one of the lowest 1,429 scorers solved this problem correctly-a fact that would have been completely obscured had this been a multiple-choice test.

| - (Raw score) | (Number who achieved this score) | (Number who solved f36) | (Percent who solved \#36) | (Percent who solved \#36 per 6 -point range) |
| :---: | :---: | :---: | :---: | :---: |
| 48 | 0 | 0 | 0 |  |
| 47 | 1 | 1 | 100 |  |
| 46 | 1 | 1 | 100 |  |
| 45 | 1 | 1 | 100 |  |
| 44 | 3 | 2 | 67 |  |
| 43 | 6 | 2 | 33 | 58.3 |
| 42 | 10 | 3 | 30 |  |
| 41 | 8 | 3 | 38 |  |
| 40 | 6 | 1 | 17 |  |
| 39 | 14 | 6 | 43 |  |
| 38 | 12 | 3 | 25 |  |
| 37 | 13 | 2 | 15 | 30.2 |
| 36 | 24 | 5 | 21 |  |
| 35 | 24 | 1 | 4 |  |
| 34 | 24 | 1 | 4 |  |
| 33 | 36 | 3 | 8 |  |
| 32 | 51 | 11 | 22 |  |
| 31 | 53 | 0 | 0 | 9.9 |
| 30 | 34 | 5 | 15 |  |
| 29 | 49 | 3 | 6 |  |
| 28 | 65 | 3 | 5 |  |
| 27 | 48 | 1 | 2 |  |
| 26 | 78 | 1 | 1 |  |
| 25 | 70 | 2 | 3 | 4.4 |
| 24 | 88 | 0 | 0 |  |
| 23 | 92 | 1 | 1 |  |
| 22 | 111 | 3 | 3 |  |
| 21 | 126 | 0 | 0 |  |
| 20 | 121 | 0 | 0 |  |
| 19 | 145 | 1 | 1 | 0.7 |
| 18 | 120 | 1 | 1 |  |
| 17 | 144 | 1 | 1 |  |
| 16 | 154 | 2 | 1 |  |
| 15 | 154 | 0 | 0 |  |
| 14 | 159 | 1 | 0 |  |
| 13 | 142 | 1 | 1 | 0.7 |
| 12 | 162 | 0 | 0 |  |
| 11 | 179 | 0 | 0 |  |
| 10 | 155 | 0 | 0 |  |
| 9 | 180 | 0 | 0 |  |
| 8 | 139 | 0 | 0 |  |
| 7 | 3.51 | 0 | 0 | 0.0 |
| 6 | 149 | 0 | 0 |  |
| 5 | 113 | 0 | 0 |  |
| 4 | 88 | 0 | 0 |  |
| 3 | 50 | 0 | 0 |  |
| 2 | 33 | 0 | 0 |  |
| 1 | 24 | 0 | 0 | 0.0 |
| 0 | 6 | 0 | 0 | 0.0 |



