

Noesis

The Journal of the Mega Society Number 95 July 1994

Editor—Rick Rosner
5139 Balboa Blvd #303
Encino CA 91316-3430
(818) 986-9177

















IN THIS ISSUE

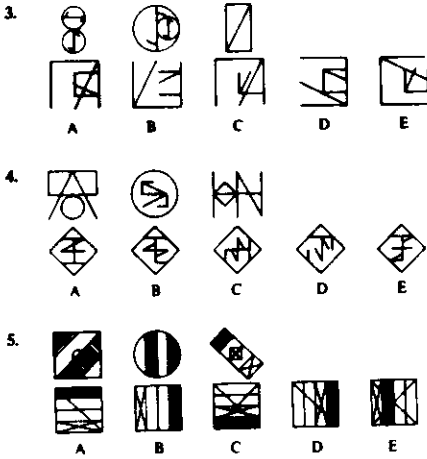
KEVIN LANGDON'S SHORT FORM INTELLIGENCE TEST (REPRINTED)
ANSWERS TO KEVIN LANGDON'S SHORT FORM INTELLIGENCE TEST
LETTER FROM PHILIP BLOOM
ROBERT HANNON AGONISTES

KEVIN LANGDON'S SHORT FORM INTELLIGENCE TEST (REPRINTED)

PART ONE FIGURE ANALOGIES

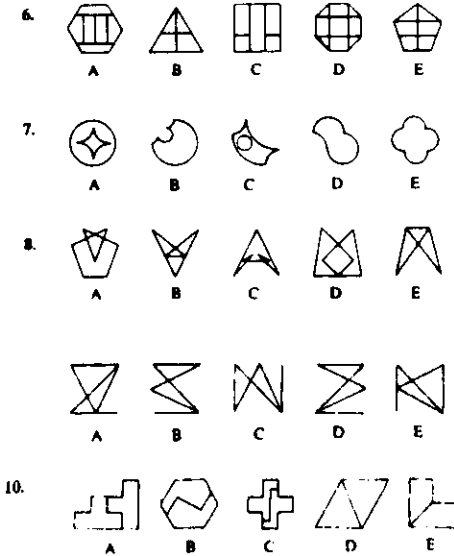
INSTRUCTIONS: Each item consists of three figures on one line, followed by five lettered figures on the line below. Choose the letter of the figure that is related to the third figure on the first line in the same way that the second figure is related to the first.

1.   
- A  B  C  D  E 
2.   
- A  B  C  D  E 



**PART TWO
EXTRANEOUS FIGURES**

INSTRUCTIONS: For each item, choose the letter of the figure that does not belong with the other four.



**PART THREE
VOCABULARY**

INSTRUCTIONS: Each item consists of two words on one line, followed by five lettered words on the line below. Choose the letter of the word on the second line that is not a synonym for either of the words on the first line.

11. set pass
A. impose B. invert C. adjust D. happen E. pronounce
12. render port
A. translate B. carry C. melt D. settle E. left
13. state mind
A. object B. interpret C. ceremonial D. opinion E. express
14. mean register
A. range B. intend C. condition D. poor E. align
15. check stock
A. enter B. restrain C. broth D. draft E. security
16. bear subject
A. cast B. prone C. head D. expose E. stand
17. sound spring
A. measure B. warp C. release D. logical E. scale
18. pitch charge
A. responsibility B. potential C. angle D. term E. frequency
19. post tear
A. mail B. rend C. race D. station E. loss
20. file strain
A. abrade B. mark C. filter D. variety E. queue

**PART FOUR
FIGURE SERIES**

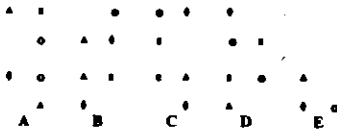
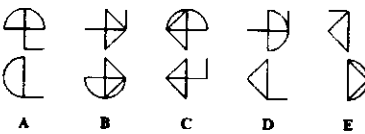
INSTRUCTIONS: Each item consists of a sequence of figures on one line, followed by five lettered figures on the line below. Choose the letter of the figure on the second line that continues the progression of the first line.

21.


| | | | | |
|---|---|---|---|---|
| | | | | |
| A | B | C | D | E |
22.


| | | | | |
|---|---|---|---|---|
| | | | | |
| A | B | C | D | E |
23.



| | | | | |
|---|---|---|---|---|
| | | | | |
| A | B | C | D | E |



24. 
25. 


**PART FIVE
MISCELLANEOUS SPATIAL PROBLEMS**

26. 
- If a worm gnaws a hole through the eight-cube solid shown above, starting with cube 1 and passing through each cube exactly once, without crossing any boundary where more than two cubes meet, which cube or cubes of those marked 2, 3, and 4 can it emerge from?
- A only 2 B 2 or 3 C 2 or 4 D 3 or 4 E 2, 3, or 4

27. 
- If three gallons of paint are required to paint all sides of one cube, how many gallons will be required to paint all exterior surfaces of the figure shown? (Three cubes in the lower right rear corner are not visible.)
- A 19 B 20 C 21 D 22 E 23

28. 
- Which of the following could be folded to make the six cube solid shown above? (Ignore the difference in scale.)
- 
- A B C D E

29. 
- The large solid figure at the left above is taken apart into three pieces. Two of the pieces are shown at the right above. Which of the following is the third piece?
- 
- A B C D
- E. none of the above

30. 
- How high a tower can be built using seven blocks with the dimensions shown above without rotating any block more than ninety degrees from the orientation shown?
- A under 67" B 67-71" C 72-76" D 77-81" E over 81"

**ANSWERS TO KEVIN LANGDON'S SHORT FORM INTELLIGENCE TEST
[Figure Z]**

A Notice to Polymath Systems Customers

Our work is not primarily for financial gain. Payments for products sold do not cover all the costs of our projects. We are engaged in a study of human intelligence from a number of points of view and are attempting to contribute to the development of a community of the highly intelligent. We would like to hear from anyone interested in our work or who would like to become involved in our projects.

We publish books and other written materials, intelligence tests, and computer software; sponsor lectures and conferences; and perform programming and documentation services on a contract basis. Only our consultation work provides substantial income. This and the events of our personal lives have often made it impossible for us to give our testing business as much time or as frequent attention as we would wish.

We have also faced a series of circumstances beyond our control which have prevented prompt response to orders for Polymath Systems products and requests for tests or information: three major moving operations since the beginning of 1994, flooding of our storage space, infringement of the copyright on our principal test, three trips to the computer repair shop since the beginning of the year, etc.

We are in the process of reducing our backlog. Please be patient. A new test, the Stratospheric Test of Attention in Reasoning (STAR), is now available from Polymath Systems, P.O. Box 795, Berkeley, CA 94701, for \$1. Scoring is \$3 until September 30, \$12 thereafter.

**Langdon Short Form Intelligence Test
Answers and Reasoning**

Part One--Figure Analogies

1. C.

Each figure consists of four parts.

The large T in figure 1 corresponds to the curved, Y-shaped element in figure 3.

Invert the element along its long axis, reduce by 1/2, move to the edge of the figure in the direction the stem now faces.

The concave arch in figure 1 corresponds to the circle in figure 3. Enlarge and center.

One rectangle in figure 1 correspond to the X and and the other to the XX element in figure 3.

Turn one of these elements 90 degrees, enlarge 2X, and center; discard the other element.

None of the figures containing a single X has the proper combination of elements. Choice C, with an XX, has the required combination.

2. B.

Each inner segment in figure 1 becomes a small square 90 degrees clockwise from that segment in figure 2. Each outer segment in figure 1 indicates the orientation of a diagonal in figure 2. Figure 3 transforms to choice B.

3. E.

Each figure consists of a top and a bottom half. Turn the top half 90 degrees counterclockwise, enlarge 2X, and center. Move the bottom half to right center.

4. D.

This problem is very similar to problem 1.

Each figure consists of four parts.

The inverted V in figure 1 corresponds to a sideways T in figure 3,

with the top of the T to the left.

Turn 90 degrees clockwise and reduce by 1/2.

The small circle in figure 1 corresponds to the diamond in figure 3. Enlarge 2X and center.

The right and left halves of the rectangle in figure 1 correspond to the top and bottom halves of the N in figure 3.

Displace each of the two halves half its own width clockwise along their common boundary, reduce by 1/2, and center.

5. D.

The circle in figure 1 corresponds to the square in figure 3, with either one or two diagonals.

Enlarge 4X and frame the remaining elements of the figure.

The remainder of each figure consists of four regions delimited by parallel lines, two of which are marked.

Rotate 45 degrees counterclockwise, then rotate the regions one position to the left, moving the leftmost to the rightmost position, preserving the marking of each region.

Rotating 135 degrees clockwise does not work, as choice B lacks a main diagonal.

Part Two--Extraneous Figures

6. A.

Each figure is divided into one more region than its number of sides except choice A, which contains 6 sides and 6 regions.

7. D.

The arcs contained in each figure sum to 720 degrees (two circles), except in the case of choice D, which contains arcs summing to 540 degrees.

Choice D also contains only two vertices, while each of the other choices contains 4.

8. E.

Each figure can be drawn along a single continuous circuit beginning and ending at the same point, without retracing, except choice E.

9. B.

Each figure consists of a superimposed V and Z, in various orientations. The Z in choice B is a mirror image of those in the other choices.

10. E.

Each figure is made up of two identical parts except choice E, whose parts are mirror images of one another.

Part Three--Vocabulary

For each item, the correct answer choice is given and the two alternatives which are synonyms for each of the two words on the first line are indicated.

11. B. invert

set: impose, adjust

pass: happen, pronounce

12. D. settle

render: translate, melt

port: carry, left

13. B. interpret

state: ceremonial, express

mind: object, opinion

14. C. condition

mean: intend, poor

register: range, align

15. A. enter

check: restrain, draft

stock: broth, security

16. A. cast

bear: head, stand
subject: prone, expose

17. E. scale

sound: measure, logical
spring: warp, release

18. D. term

pitch: angle, frequency
charge: responsibility, potential

19. E. lose

post: mail, station
tear: rend, race

20. B. mark

file: abrade, queue
strain: filter, variety

Part Four--Figure Series

21. E.

Two cycles are superimposed.

One cycle has period 2, alternating an X in a square with nothing.
The other cycle has period three, in the order: circle with a horizontal line, double arrow, nothing.
The next figure in the series is nothing/nothing.

22. E.

To transform each figure into the succeeding one, remove the uppermost segment and add two segments, in an L shape, to the lower end of the figure.

Equivalently, beginning from the bottom of the figure, each figure consists of alternating horizontal and vertical segments. The

vertical segments always go up. There is always one horizontal segment that goes right; its position shifts two places later in the sequence at each step. The remaining horizontal segments go left. The sequence becomes one segment longer at each step.

23. A.

Alternately, exchange left and right and top and bottom halves of the figure. Exchanging top and bottom halves when there is a horizontal line in the center of the figure results in one horizontal line at the top and one at the bottom. Four exchanges return to the original figure.

24. E.

Each figure consists of the four symbols -, , o, ., one of which is invisible.

The symbols rotate one position counterclockwise per step.

The invisibility property rotates clockwise, first by one position, then by two, and so on.

25. E.

The figures are composed of three elements: a D, an L, and a triangle. Each element passes through a three-phase cycle: appear, rotate, disappear.

When an element appears it is always in the same position that it was two phases previously, before it disappeared.

Each element has its own unique rotation: the D rotates 90 degrees clockwise, the L rotates 90 degrees counterclockwise, and the triangle rotates 180 degrees.

Following the fifth figure on the first line, the D appears, the L disappears, and the triangle rotates 180 degrees.

Part Five--Miscellaneous Spatial Problems

26. C.

[Figure U]

When the cube is colored as shown above, it is clear that every time the worm travels from one cube to another the source and

destination cubes are of opposite colors. As it takes seven moves to traverse all eight cubes, the worm must emerge from a white cube, ruling out 3.

Paths through the cube ending at 2 and 4 are shown below:

[Figure V]

27. B.

Nine cubes are visible and three are hidden. Twelve cubes have a total of 72 sides.

There are sixteen pairs of cube sides flush against one another. 72 sides minus 32 interior sides leaves 40 sides to be painted, requiring 20 gallons of paint.

28. D.

Fold lines are indicated:

[Figure W]

29. C.

Location of pieces is shown:

[Figure X]

30. E.

An 82-inch tower can be built.

Set up two blocks side by side, in the orientation shown.

Place four blocks on their sides on the two bottom blocks, with the platform at the top of each of the bottom blocks three-fifths of the way out one arm of the bottom sideways block.

Place the seventh block upright, bridging the gap between the ends of the arms of the top sideways block.

[Figure Y]

But that's not all. An 87-inch tower is also possible.

All seven blocks are placed right side up; each one is rotated 90 degrees from the one immediately below it.

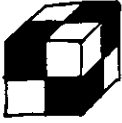


Figure U

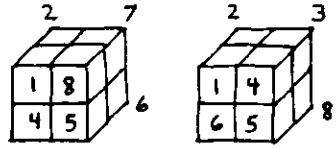


Figure V

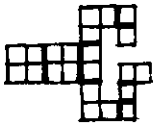


Figure W

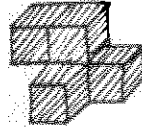
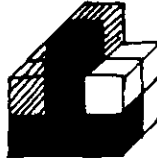


Figure X

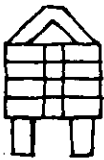


Figure Y



Figure Z

May 2, 1994

LETTER FROM PHILIP BLOOM

Mr. Chris Cole
POB 9545
Newport Beach, CA

Dear Mr. Cole:

I am a Mega Society member with possibly intriguing research findings.

Certain real-life human phenomena, when analyzed in very elementary fashion as probabilities, appear to be related to very elementary number theory. In particular, classic 1937 Stanford-Binet IQ literature data can be quite closely matched by values generated from proposed growth (time-course) equations which incorporate Fibonacci number (0,1,1,2,3...)-related constants. Also proposed are structurally very similar simple equations which generate values quite closely matching data from currently used percentile graphs for height-growth. Since IQ and height are disparate traits, a general significance is strongly suggested.

If you are interested in reading the 1000-word report, and in commenting (however briefly), I would be happy to send you a copy. I have worked on this project for over five years, so publication in a widely-read journal is devoutly to be wished. But the interdisciplinary nature of the thesis creates almost insurmountable problems in exposition. My ideas must be understood before they can be evaluated.

Sincerely yours,

Philip Bloom
Philip Bloom

75 Henry Street Apt 5K
Brooklyn, New York, 11201

Noesis Number 95 July 1994 page 13

ROBERT J. HANNON
27 June 94

6730 Station Road
ROBERT HANNON ACADEMIST

Sarasota FL 34238-5626

Rick Rosner, Editor
Noesis
5139 Balboa Blvd
Encino CA 91316-3430

Dear Rick,

Just received 91, 92, 93, all very interesting! I'd like to reply to my critics.

1) Ron Hoeflin: a) Calumny is the last resort of the bigot.

b) I've not hidden the fact that I am not a member of Mega. I am a member of Mensa, ISPE, TNS. I have zero confidence in use of "IQ tests" to differentiate among the top strata.

c) My idea that a very small acceleration of the velocity of light will explain the cosmological redshift is only an alternative to the equally-unfounded current belief that it arises from the Doppler effect due to the expansion of the universe. My idea agrees as well with observation as does the Doppler effect-expanding universe idea. I don't know why C would increase with time. (Whatever the cause, it would entail evolution of the mechanisms by which atoms radiate EM radiation, not any effect of motion through space.) Conversely, no one knows why the universe would expand.

The cosmological redshift is a very different phenomenon from the Doppler effect due to relative motion. I do not deny that opposite sides of suitably-oriented rotating galaxies display opposite Doppler shifts. The Doppler effect is an obvious explanation for that. The cosmological redshift which affects all distant objects not gravitationally bound to our galaxy may be due to the Doppler effect arising from the expansion of the universe. On the other hand it may be due to an acceleration of C or some other, yet unknown phenomenon. I simply believe that our science must always objectively consider all possibilities. Unfortunately that objectivity is rare.

d) Your opinion that exposure to my "crackpot" ideas will discourage "the truly gifted" from joining Mega implies that "the truly gifted" (by your standards, of course) must all believe that our science is unquestionably correct in all of its current dogma, and that it the only way to interpret nature.

In my experience "the truly gifted" (I've known a few) are fascinated by unorthodox views and ideas, and really turned off by your kind of stifling intellectual paralysis.

Unfortunately, my experience indicates that you may be correct, not as to "the truly gifted", but as to the members of the science establishment who often astound me with their factual ignorance of subjects on which they claim expertise.

e) It is of zero concern to me if you or anyone else considers me a "crackpot". But I object to your arrogance in assuming that you should be permitted to silence me because you disagree with my views. If you think my ideas are wrong, why not offer sound, objective, mathematical and observational proof, in place of authoritarianism? So far you have often displayed your ignorance and have proffered only calumny.

g) I have often been asked to account for the various purported "proofs" of Special Relativity, if my criticisms are valid. The fact is that there are not "thousands", but only five different "proofs". Most famous is $E=mc^2$. Fact: that equation is not original with Einstein; it was derived independently at least twice before 1900 using straightforward non-relativistic Maxwell-Newton physics. Second is the "relativistic Doppler effect". Fact: there is no evidence that the relativistic Doppler equations more accurately represent nature than the non-relativistic equations. Valid proof is far, far, far beyond our technology. The remaining three "proofs": the purported increase of mass of charged particles with relative velocity; the apparent increase in the half-life of charged unstable particles moving at near-C; the seeming dilation of time as measured by atomic clocks moving on jet aircraft and on satellites. Fact: every one of these "proofs" is based on experimental situations which egregiously violate the physical model on which the Einstein-Lorentz Transformation (ELT) is predicated. The ELT simply does not apply to those experiments. The observed phenomena are doubtless real, but they are not explained by SR.

h) We may agree on one thing: nature is always as simple as it possibly can be. Theories that become ever more complex are likely to prove wrong. Theories that assume "hidden phenomena" are likely to prove wrong.

2) Robert Dick: I am unaware of any disagreement of a fundamental nature between us. I am unaware that you "caught me" regarding Fourier Transform theory, which is a field in which I too can claim a degree of expertise, having devoted a couple of years to the development of the first solid-state analog electronic Fourier Transform and Inverse-Transform Operator. I also worked on the development of one of the first radar systems that used digital FFT techniques.

I have never claimed I am "smarter than Einstein", only that I believe he made some important mistakes.

I write about the physical sciences because they are my major (but far from only) interest. I publish my views in the hope of serious, objective discussion with others knowledgeable in those fields. It is my impression that Rick would not publish so much of my stuff if others submitted more articles for publication.

3) Chris Langan: You huff and you puff. All that comes out is hot air. You are a true expert at using pages of erudite-sounding words to say nothing.

4) Fred Vaughan's "Concerning the Lorentz Transformation". I read *Noesis* Number 95 July 1994 page 15

it in the March 94 GOF, and sent him a reply. I'll send a copy to any who asks for it.

5) Mike Price: a) If the mathematical base of Special Relativity is incorrect, then that theory is incorrect. It is not incumbent on me or anyone else who can produce simple evidence that SR is invalid to explain the results obtained by others through their applications of invalid mathematics.

b) My METRIC TRANSFORMATION (copy on request) deals with any asymmetry of the laws of nature that may arise under the GT. Apparently you are unaware that subjecting the Maxwell Field equations to the GT is invalid, because Maxwell did not take motion into account in their derivation. Hertz discovered that fact and modified Maxwell's equations taking motion into account, and so that they are symmetric under the GT. Hertz published his work in 1892.

c) There is a new Analytical Theory of Spectroscopy, recently published by Prof Filip M Kanarev of Kuban State University, Krasnodar, Russia, which accurately predicts the spectra (Lyman, Balmer, Paschen) of Hydrogen (including the fine structure) and several other elements without the Schrodinger equation or any other aspect of quantum mechanics, and without special relativity. It accurately defines lines not previously predictable by established methods. Prof Kanarev honored me by asking that I edit the translation of his book from Russian to American.

Sincerely,



Robert J. Hannon