# Contest: Spectacular Reasoning Assessment (SPECTRA) January 1, 2018 - December 31, 2018 11:59pm ET Participants: 17 

Test Designer: James Dorsey

## Table of Contents

Topic Page
Contest Information ..... 3
Spectacular Reasoning Assessment (SPECTRA) ..... 3
Final Scoreboard (December 31, 2018) ..... 6

## Contest Information

Cheating: Do not discuss answers/hints. No time limit. Two attempts and reference aids are allowed. No penalty for guesses/wrong answers.

## Spectacular Reasoning Assessment (SPECTRA)

Attempt all 5 sections. The Psi section will be scored separately from the IQ section. IQ section: raw score out of 32 . Psi section: raw score out of 8 .

## I. Logical

1. Complete the series:

| $\# * *$ | $* * *$ |
| :--- | :--- |
| $* * *$ | $\# * *$ |
| $* * *$ | $* * *$ |$?$

2. Complete the series:

| $\# * *$ | $\# \# *$ |  |
| :--- | :--- | :--- |
| $\# * *$ | $* * *$ | $?$ |
| $* * *$ | $* * *$ | $\# * *$ |
| $* * *$ |  |  |

3. Find the missing element in this matrix:


4. Find the missing element in this matrix:

| $!@ \#!\$$ | $\% \wedge \& *$ | $\$ * \&!$ | @~\#\$\% |
| :--- | :--- | :--- | :--- |
| @\#! $\$!$ | $\wedge \& * \%$ | $* \&!\$$ | $\sim \# \$ \%$ |
| $\#!\$!@$ | $\& * \% \wedge$ | $\&!\$ *$ | \#\$\%@~ |
| $!\$!@ \#$ | $* \% \wedge \&$ | $!\$ * \&$ | $?$ |

5. Complete the analogy:
\#*\# : *\#* : : \#*\#\#* : ?
6. Complete the analogy:
```
## : ** : : ####: #*
```

7. Select the letter $(\mathrm{A}, \mathrm{B}$, or C$)$ of the item that is different from the others:
\# : * * : * * \#
A
B
C
8. Problem Solving:

Going into a large department store, I went into four aisles, each with a unique alphanumeric code, to find four items
The first aisle I went into was 1K3I7U1 for school supplies. Next, I went into aisle 3I7G1B2 for socks, then aisle 7G1D9Z3 for shoes.

Logically, which of the following aisles did I go into next for shirts before going to the checkout line:
2K1Z2F3, 4A5X8F1, 8H2E0A4, 9W0E1L2, 1D9Q1C4, 0S5X6V1, 2B4H0J1, 6N2K7D3, 7O1C3M1, 3Z5Y7X2, or 9G1D9Z4

## II. Verbal

9. Complete the series:

Yaw Roll ?
10. Complete the series:

Arctic Atlantic Indian Pacific ?
11. Find the missing element in this matrix:

| Poem | Book |
| :--- | :--- |
| $?_{-\_-Z_{-}} \mathrm{Z}_{-}$ | Chapter |

12. Find the missing element in this matrix:

Wire
Bread
Cable $\qquad$
13. Complete the analogy:
$\qquad$ n
Copyright © 2018 by James Dorsey
14. Complete the analogy:

Unusual kind of magic : Voodoo : : Unusual column of rock : ? $\qquad$
15. Select the word that is different from the others:
dad, deed, doom, dud
16. Problem Solving:

For the word Divide, replace 1 letter for something celestial; keep the letters in order after replacement: $\qquad$

## III. Numerical

17. Complete the series:
$22 \quad 43 \quad 85 \quad 169 \quad 337$ ?
18. Complete the series:

1 | 1 | 12 | 358 | $?$ | 34558 |
| :--- | :--- | :--- | :--- | :--- |

19. Find the missing element in this matrix:

| 12345 | 168 |
| :--- | :--- |
| 49684 | $?$ |

20. Find the missing element in this matrix:

| 7 | 1 | 0 | 7 |
| :--- | :--- | :--- | :--- |
| 5 | 2 | 2 | 5 |
| 3 | 3 | 2 | 7 |
| 2 | 4 | 1 | $?$ |

21. Complete the analogy:
$\begin{array}{lllll}1 & 2: 3: & : & 5 & 5 \\ 8 & 17: ?\end{array}$
22. Complete the analogy:
$\begin{array}{lllllll}5 & 2 & 3: 30:: 35 & 7 & 8 & 9 & 11: ?\end{array}$
23. Select the number that is different from the others:

12678, 14579, 13456, 12589, 13567, 14578, 10456, 15679, 16789, 13789
24. Problem Solving:

At a charity event, a total of 4120 shoes were collected from four companies (A, B, C, D). Company A donated the most shoes. Company A exceeded Company B by 1200 shoes, Company C by 540 shoes, and Company D by 360 shoes.

How many shoes did Company B donate?

## IV. Spatial

25. Complete the series. This item can be solved with your keyboard - drawing software is not required:

?
26. Complete the series. This item can be solved with your keyboard - drawing software is not required:

?

Copyright © 2018 by James Dorsey
27. Find the missing element in this matrix. This item can be solved with your keyboard - drawing software is not required:

| $* * *$ | $@$ | $?$ |
| :--- | :--- | :--- |
| $\wedge$ | $* *$ | @@@ |
| @@ | $\wedge \wedge \wedge$ | $*$ |

28. Find the missing element in this matrix. This item can be solved with your keyboard - drawing software is not required:

## 0

## 0

0
0
$?$

29. Complete the analogy. This item can be solved with your keyboard - drawing software is not required:
| : _ : : / ?
30. Complete the analogy. This item can be solved with your keyboard - drawing software is not required.

| $\mathbf{T}$ | LLLLL |  | $\mathbf{E}$ | $\mathbf{E}$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{T}$ | $\mathbf{L}$ |  | $\mathbf{E}$ | $\mathbf{E}$ |  |
| $\mathbf{T}$ | $:$ | $\mathbf{L}$ | $:$ | $\mathbf{E E E E E}$ | $:$ |
| $\mathbf{T}$ | $\mathbf{L}$ |  | $\mathbf{E}$ | $\mathbf{E}$ |  |
| $\mathbf{T I T T}$ | $\mathbf{L}$ |  | $\mathbf{E}$ | $\mathbf{E}$ | The answer must contain 17 of a specific character (letter, number, or symbol). |

31. Select the letter $(A, B, C, D, E, F$, or $G)$ of the item that is different from the others:

| $\left\{\int \rightarrow \int\right\}$ | $\{\neq \rightarrow \neq\}$ | $\{\approx \rightarrow \approx\}$ | $\{\div \rightarrow \div\}$ | $\{\dot{\psi} \rightarrow \dot{\psi}\}$ | $\{/ \rightarrow /\}$ | $\{-\rightarrow-\}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $A$ | $B$ | $C$ | $D$ | $E$ | $F$ | $G$ |

32. Problem Solving:

State the maximum amount of pieces that will result from a large cube of clay with 4 -foot sides being cut in the following way: One cut is initially made, then four cuts are made in a different direction, and finally nine cuts are made on the cube in a completely different direction from the previous cuts. Cuts are never made diagonally and the pieces are never moved.
V. Psi - Through psychic means, select one term from each of the following:
33. \# @
34. \{* !
35. + - $-($
36. $\sim=\quad=\sim$
37. < >
38. $1 \% * \%{ }^{\wedge *}$
39. \#- \$\&
40. In this psi section, not including this item, how many items did you answer correctly?

Final Scoreboard (December 31, 2018)

| Ranking | Name | Country | $\begin{gathered} \mathbf{1}^{\text {st }} \text { Attempt } \\ (\mathrm{IQ}+\mathrm{Psi}) \end{gathered}$ | $\begin{gathered} 2^{\text {nd }} \text { Attempt } \\ (\mathrm{IQ}+\mathrm{Psi}) \end{gathered}$ | Total Mean Score | Prize |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Winner | Liam Milliken | USA | $37(32+5)$ | N/A | 37 (32+5) | Three free test submissions and two free society memberships until March 31, 2019. |
| $2^{\text {nd }}$ Place | Tim Roberts | Australia | $34(31+3)$ | N/A | $34(31+3)$ | Two free test submissions and one free society membership until March 15, 2019. |
| $3^{\text {rd }}$ Place | Daniel Hilton | England | $33(30+3)$ | N/A | $33(30+3)$ | Free test submission and $1 / 2$-off society membership until March 15, 2019. |
| $4^{\text {th }}$ Place | Andrew Hayles Greg Cronau | $\begin{aligned} & \text { USA } \\ & \text { USA } \end{aligned}$ | $\begin{aligned} & 31(26+5) \\ & 31(30+1) \\ & \hline \end{aligned}$ | N/A | $\begin{aligned} & 31(26+5) \\ & 31(30+1) \\ & \hline \end{aligned}$ | $1 / 2$-off test submission and $1 / 2$-off society membership until February 28, 2019 |
| $5^{\text {th }}$ Place | Konstantinos Ntalachanis Tiberiu Sammak Joseph Hayes | Greece <br> Romania USA | $\begin{aligned} & 30(26+4) \\ & 30(28+2) \\ & 30(25+5) \\ & \hline \end{aligned}$ | N/A | $\begin{aligned} & 30(26+4) \\ & 30(28+2) \\ & 30(25+5) \\ & \hline \end{aligned}$ | 1/2-off test submission until February 28, 2019. |
| $6^{\text {th }}$ Place | Jim Lorrimore | England | $26(23+3)$ | 33 (28+5) | $29.5(25.5+4)$ |  |
| $7^{\text {th }}$ Place | Nobuo Yamashita | Japan | $29(26+3)$ | N/A | $29(26+3)$ |  |
| $8^{\text {th }}$ Place | Patrick Liljegren | Sweden | $28(24+4)$ | N/A | $28(24+4)$ |  |
| $9^{\text {th }}$ Place | José Enrique Benlloch Izquierdo Jawdat Wehbe Wehbe Göran Åhlander | Spain Venezuela Sweden | $\begin{aligned} & 26(23+3) \\ & 28(25+3) \\ & 26(24+2) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { N/A } \\ 24(21+3) \\ \text { N/A } \\ \hline \end{gathered}$ | $\begin{aligned} & 26(23+3) \\ & 26(23+3) \\ & 26(24+2) \\ & \hline \end{aligned}$ | Secret Prize: given to all participants |
| $10^{\text {th }}$ Place | Anthony Brown | USA | $23(20+3)$ | $26(22+4)$ | $24.5(21+3.5)$ |  |
| $11^{\text {th }}$ Place | Anfinn Bjartalíð | Faroe Islands | $24(19+5)$ | N/A | $24(19+5)$ |  |
| $12^{\text {th }}$ Place | Tonny Sellén | Sweden | $24(21+3)$ | $22(19+3)$ | $23(20+3)$ |  |

