# Spatial Relations Latitude (SPIRAL)

## Released: April 1, 2022

## Norm: Preliminary Norm II (20 testees)

## [Fee](): 1st Attempt (Free)|2nd Attempt ($5)

**Test Designer: [James Dorsey]()**

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

## Spatial Relations Latitude (SPIRAL)

Observe the rotation and symmetry of the letters/numbers/symbols; for the solutions, use your keyboard – no drawing or software required!

**I.    Series**

1. Complete the series:

   `?        --      -       --      -       --`

2. Complete the series:

   `.            ?              . . .          . . . .         . . . . .       . . . . . .`

3. Complete the series:

   `o            O            o            O`

   `      O            o            O            ?`

**II.    Matrices**

4. Find the missing element in this matrix:

   `]           ?`
   `=|          |==|`

5. Find the missing row in this matrix:

   ```
   !!11!!11
   11!!11!!
   ?
   11!!11!!
   ```

6. Find the missing element in this matrix (unlike the others, you can count on spending a lot of time trying to solve this matrix item):

   ```
   %      *      @
   %      *      %
   *      @      *

   *      @      %
   %      @      ?
   *      %      @

   @      %      *
   @      @      @
   *      %      %
   ```

**III.    Analogies**

7. Complete the analogy:

   `6 : 9 :: p : ?`

8. Complete the analogy:

   `v : ∇ :: 7 : ?`

9. Complete the analogy:

   `{ : } :: / : ?`

**IV.    Odd-One-Out**

10. Select the letter (A, B, or C) of the item that is different from the others:

    `Q      X      D`
    `A      B      C`
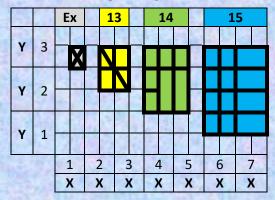
11. Select the letter (A, B, C, or D) of the item that is different from the others:

    `I      N      Z      U`
    `A      B      C      D`

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

    `)      |      [      +      ~`
    `A      B      C      D      E`

## V.     Problem Solving

Find where the missing line needs to be in order to complete the pattern for items 13, 14, and 15 (the items are individually colored)

|  |  | **Ex** | **13** |  | **14** |  | **15** |  |
|---|---|---|---|---|---|---|---|---|
| **Y** | **3** |  |  |  |  |  |  |  |
| **Y** | **2** |  |  |  |  |  |  |  |
| **Y** | **1** |  |  |  |  |  |  |  |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|  |  | X | X | X | X | X | X | X |

Write coordinates going from left to right or top (corner) to bottom (corner). The missing line could be vertical, horizontal, or diagonal (each diagonal line is to be viewed as one continuous line connecting one corner of the bolded square to the other corner.

For example, imagine the following scenarios of missing lines for the smallest square in the example (Ex):

- If only the bottom horizontal line is missing, complete it with: Left (X, Y) = (1, 2.5) and Right (X, Y) = (1.5, 2.5)
- If only the right vertical line is missing, complete it with: Top (X, Y) = (1.5, 3) and Bottom (X, Y) = (1.5, 2.5)
- If only the \ diagonal (top left to bottom right) is missing, complete it with: Top corner (X, Y) = (1, 3) and Bottom corner (X, Y) = (1.5, 2.5)
- If only the / diagonal (top right to bottom left) is missing, complete it with: Top corner (X, Y) = (1.5, 3) and Bottom corner (X, Y) = (1, 2.5)

Please review the above examples before attempting the following items to understand the correct format for answering them.

13. Write the coordinates for item 13 going from left to right or top (corner) to bottom (corner) in the correct format:

Left or Top (corner) (X, Y) = (?, ?) **and** Right or Bottom (corner) (X, Y) = (?, ?)

14. Write the coordinates for item 14 going from left to right or top (corner) to bottom (corner) in the correct format:

Left or Top (corner) (X, Y) = (?, ?) **and** Right or Bottom (corner) (X, Y) = (?, ?)

15. Write the coordinates for item 15 going from left to right or top (corner) to bottom (corner) in the correct format:

Left or Top (corner) (X, Y) = (?, ?) **and** Right or Bottom (corner) (X, Y) = (?, ?)

## Submission Information:

E-mail **OpalQuestGroup@gmail.com** the following information: **Full Name**, **Country**, **Age**, **Sex**, a clear scan of your **Photo ID** (State/Country ID, Driver's License, Passport, etc.) showing only your full name, age/birthdate, and country **Prior scores on IQ tests (if any):**

Test Name|IQ(raw score if IQ is unknown)|SD (15/16/24)|Attempt(1$^{st}$,2$^{nd}$,…)|Year Taken|Test's website (if known). For example,

LogiNum  |160                        |SD 15        |3$^{rd}$           |2000        |http://www.loginum.com

NumVerb  |164                        |SD 16        |1$^{st}$           |1992

The NLogi |9 (raw score)            |SD unknown  |2$^{nd}$          |1987

Attempt (1$^{st}$ or 2$^{nd}$ time taking this test)
Your Solutions (For example):
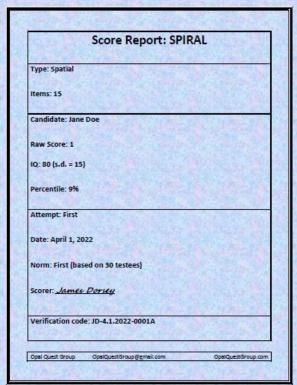1. 4
2. Circle
3. xox

Make sure you keep a copy of your solutions in case some of the best items appear in a future test; I will forward your email with them for $1.

| Norming and  Scoring Fee System | Tests composed of new items | | Tests composed of over 50% of previously used items/multiple choice items | |
|---|---|---|---|---|
| Norming Stage (# of Testees) | 1$^{st}$ Attempt | 2$^{nd}$ Attempt | 1$^{st}$ Attempt | 2$^{nd}$ Attempt |
| N/A (<5)\|Estimate (5) | Free | $5 | $5 | $10 |
| **Preliminary Norms** I\|**II** (10\|**20**) | **Free** | **$5** | $5 | $10 |
| First Norm (30) | $5 | $10 | $10 | $15 |
| Second Norm (60) | $10 | $15 | $15 | $20 |
| Third Norm (90) | $15 | $20 | $20 | $25 |
| Final Norm (120) | $20 | $25 | $25 | $30 |
| **Bolded and underlined**: norming stage and current fees | **http://www.paypal.me/OpalQuestGroup** to pay scoring fee (if any) | | | |

## Score Report Example:

Score Report: SPIRAL

Type: Spatial

Items: 15

Candidate: Jane Doe

Raw Score: 1

IQ: 80 (s.d. = 15)

Percentile: 9%

Attempt: First

Date: April 1, 2022

Norm: First (based on 30 testees)

Scorer: *James Dorsey*

Verification code: JD-4.1.2022-0001A

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# Norming (January 2023)/Scoreboard

**Norm** (Rank Equation): Prelim. Norm II (20 testees)    Based on 1st Attempts: **Raw Median**: 11    **Mean**: 11.17    σ: 1.97    **Split-Half Reliability**: 0.64

| Correlations with other tests: | *Correlation between age and raw score*: N/A | *Estimated minimum g loading*: N/A | Pairs (≥ 3) | Correlation |
|---|---|---|---|---|
| Numerus Light | | | 3 | 1 |
| Mathema | | | 3 | 0.99 |
| Rhyming Riddles | | | 7 | 0.77 |
| Lux25 | | | 3 | 0.76 |
| METEOR | | | 11 | 0.70 |
| IGNITER | | | 12 | 0.68 |
| ASMuDi | | | 10 | 0.58 |
| Replacement Riddles | | | 11 | 0.49 |
| CELESTIAL | | | 13 | 0.48 |
| Reduction Riddles | | | 9 | 0.46 |
| Alphabet | | | 15 | 0.41 |
| FREE Fall | | | 5 | 0.40 |
| Asterix | | | 4 | 0.40 |
| OASIS | | | 15 | 0.35 |
| ILLUSION | | | 16 | 0.32 |
| Fiqure | | | 9 | 0.28 |
| COSMIC | | | 18 | 0.20 |
| SPECTRA | | | 10 | 0.18 |
| Hieroglyphica | | | 3 | 0.10 |
| Warp | | | 4 | -0.09 |
| MultDiv | | | 8 | -0.14 |
| LSHR Light | | | 6 | -0.17 |
| PatNum | | | 13 | -0.23 |
| WIT | | | 5 | -0.24 |
| AdSub | | | 13 | -0.30 |
| Lexiq | | | 5 | -0.55 |
| Tests with 2 pairs: Register, Numerus Classic, SLSE I, Gliaweb Riddled Intelligence Test – Revision 2011, MRI-30R, Test for Genius – Revision 2016, Mach, PIGS of the 3rd degree, Numericore, Einplex, GIFT Verbal, Numerus, FREE Fall Pt. 2, EMC-30R | | | 28 | 0.12 |
| For privacy, tests with only 1 score are not including on this list. | | | | |

| Norm: Raw | IQ (SD 15) | Frequency (1st \| 2nd Attempts) | Scoreboard: Testees: 23 (1st, 2nd Attempts) |
|---|---|---|---|
| 1 | <70 | 0 \| 0 | X, X |
| 2 | <70 | 0 \| 0 | X, X |
| 3 | <70 | 0 \| 0 | X, X |
| 4 | <70 | 0 \| 0 | X, X |
| 5 | <70 | 0 \| 0 | X, X |
| 6 | <70 | 0 \| 0 | X, X |
| 7 | 80 | 0 \| 1 | X, Hidden |
| 8 | 110 | 3 \| 0 | Hidden2, Hidden3, Hidden7, X |
| 9 | 123 | 2 \| 0 | Hidden, Hidden4, X |
| 10 | 131 | 4 \| 0 | Lukáš Puškáš, Enoch Kwak, Hidden6, Hidden8, X |
| 11 | 142 | 3 \| 2 | Göran Åhlander, Niels Ellevang, Jewoong Moon, Mohammed Benazzi, Tiberiu Sammak |
| 12 | 146 | 5 \| 1 | Jim Lorrimore, Susumu Ota, Andrew Hayles, Hidden5, Ivan Veljačić, Marco Falchi |
| 13 | 156 | 3 \| 3 | Mohammed Benazzi, Tiberiu Sammak, Marco Falchi, Nobuo Yamashita, Susumu Ota, Hidden5 |
| 14 | 161 | 2 \| 0 | Nobuo Yamashita, King Fuei Lee, X |
| 15 | 166 | 1 \| 0 | Jo Christopher M. Resquites, X |