|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Gf-Gc Composite** | **Gc** | **Gf** | **Gwm** | **Gs** | **Ga** | **Glr** | **Gv** |
| **Tests** | OV / GI | NS / CF | VA / NR | LPM / PC | PP / NWR | SR / VAL | Vz / PR |
| **Confidence** | 90 | 95 | 90 | 95 | 90 | 95 | 90 | 95 | 90 | 95 | 90 | 95 | 90 | 95 |
| **Age** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  | 14 | 17 |  |  | 13 | 16 | 5 | 6 | 13 | 15 |
| 4 | 11 | 13 |  |  | 14 | 17 |  |  | 13 | 16 | 5 | 6 | 13 | 15 |
| 5 | 13 | 15 | 10 | 11 | 13 | 15 |  |  | 11 | 14 | 6 | 7 | 14 | 17 |
| 6 | 13 | 15 | 10 | 11 | 13 | 15 |  |  | 11 | 14 | 6 | 7 | 14 | 17 |
| 7 | 13 | 15 | 9 | 11 | 13 | 15 | 11 | 12 | 12 | 14 | 6 | 7 | 16 | 19 |
| 8 | 13 | 15 | 9 | 11 | 13 | 15 | 11 | 12 | 12 | 14 | 6 | 7 | 16 | 19 |
| 9 | 14 | 16 | 10 | 12 | 15 | 18 | 11 | 12 | 13 | 16 | 8 | 10 | 18 | 21 |
| 10 | 14 | 16 | 10 | 12 | 15 | 18 | 11 | 12 | 13 | 16 | 8 | 10 | 18 | 21 |
| 11 | 15 | 18 | 11 | 13 | 14 | 16 | 11 | 12 | 14 | 17 | 10 | 12 | 17 | 20 |
| 12 | 15 | 18 | 11 | 13 | 14 | 16 |  |  | 14 | 17 | 10 | 12 | 17 | 20 |
| 13 | 13 | 15 | 12 | 14 | 13 | 15 |  |  | 13 | 16 | 8 | 10 | 18 | 22 |
| 14 | 13 | 15 | 12 | 14 | 13 | 15 | 12 | 14 | 13 | 16 | 8 | 10 | 18 | 22 |
| 15 | 12 | 15 | 10 | 12 | 13 | 16 | 12 | 14 | 13 | 15 | 9 | 11 | 18 | 22 |
| 16 | 12 | 15 | 10 | 12 | 13 | 16 | 12 | 14 | 13 | 15 | 9 | 11 | 18 | 22 |
| 17 | 12 | 14 | 10 | 12 | 11 | 13 | 12 | 14 | 12 | 14 | 8 | 9 | 15 | 18 |
| 18 | 12 | 14 | 10 | 12 | 11 | 13 |  |  | 12 | 14 | 8 | 9 | 15 | 17 |
| 19 | 12 | 14 | 10 | 12 | 11 | 13 |  |  | 12 | 14 | 8 | 9 | 15 | 18 |
| 20 | 12 | 14 | 12 | 14 | 13 | 15 | 11 | 12 | 11 | 13 | 8 | 10 | 16 | 19 |
| 30 | 11 | 12 | 10 | 12 | 11 | 13 | 11 | 12 | 11 | 13 | 8 | 9 | 17 | 20 |
| 40 | 10 | 12 | 10 | 12 | 11 | 13 | 11 | 12 | 10 | 12 | 8 | 10 | 16 | 19 |
| 50 | 10 | 12 | 10 | 11 | 13 | 15 | 11 | 12 | 11 | 13 | 8 | 9 | 16 | 19 |
| 60 | 10 | 12 | 10 | 11 | 13 | 15 | 11 | 12 | 11 | 13 | 8 | 9 | 16 | 19 |
| 70 | 9 | 11 | 8 | 10 | 13 | 15 | 11 | 12 | 12 | 14 | 9 | 11 | 14 | 16 |
| 80 | 9 | 11 | 8 | 10 | 13 | 15 |  |  | 12 | 14 | 9 | 11 | 14 | 16 |
| AVERAGE | 12 | 14 | 10 | 12 | 13 | 15 | 11 | 13 | 12 | 15 | 8 | 9 | 16 | 19 |

Note: **Gf-Gc abilities**: Gc = Comprehension/Knowledge, Gf = Fluid Reasoning, Gwm = Short-term Working Memory, Gs = Cognitive Processing Speed, Ga = Auditory Processing, Glr = Long-term Retrieval, Gv = Visual Processing. **Tests:** OV = Oral Vocabulary, GI = General Information, NS = Number Series, CF = Concept Formation, VA = Verbal Attention, NR = Numbers Reversed, LPM = Letter-Pattern Matching, PC = Pair Cancellation, PP = Phonological Processing, NWR = Nonword Repetition, SR = Story Recall, VAL = Visual-Auditory Learning, Vz = Visualization, PR = Picture Recognition

Differences required for statistical significance are based on the standard errors of measurement of each test for each age group and calculated with the following formula:

Critical Value of Difference Score =Z$\sqrt{SEMa^{2}+SEMb^{2}}$

Where Z is the normal curve value associated with the desired two-tailed significance level and SEMa and SEMb are the standard errors of measurement for the two test scores. Reliabilities for LPM and PC are test-retest and are reported only for three age ranges.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Composite** | **Quant Reason** | **Aud Mem Span** | **Number Facility** | **Percep. Speed** | **Vocabulary** | **Cog Efficiency** |
| **Tests** | NS / AS | MfW / SRep | NR / NPM | LPM / NPM | PV / OV | LPM / NR |
| **Confidence** | 90 | 95 | 90 | 95 | 90 | 95 | 90 | 95 | 90 | 95 | 90 | 95 |
| **Age** |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  | 9 | 11 |  |  |  |  |  |  |  |  |
| 3 |  |  | 9 | 11 |  |  |  |  |  |  |  |  |
| 4 |  |  | 9 | 11 |  |  |  |  | 10 | 12 |  |  |
| 5 | 9 | 11 | 13 | 15 |  |  |  |  | 14 | 17 |  |  |
| 6 | 9 | 11 | 13 | 15 |  |  |  |  | 14 | 17 |  |  |
| 7 | 9 | 10 | 13 | 16 | 12 | 15 | 11 | 12 | 14 | 17 | 12 | 15 |
| 8 | 9 | 10 | 13 | 16 | 12 | 15 | 11 | 12 | 14 | 17 | 12 | 15 |
| 9 | 11 | 13 | 15 | 18 | 13 | 15 | 11 | 12 | 15 | 18 | 13 | 15 |
| 10 | 11 | 13 | 15 | 18 | 13 | 15 | 11 | 12 | 15 | 18 | 13 | 15 |
| 11 | 12 | 14 | 17 | 20 | 12 | 15 | 11 | 12 | 15 | 18 | 12 | 15 |
| 12 | 12 | 14 | 17 | 20 |  |  |  |  | 15 | 18 |  |  |
| 13 | 13 | 15 | 15 | 17 |  |  |  |  | 12 | 14 |  |  |
| 14 | 13 | 15 | 15 | 17 | 12 | 14 | 12 | 14 | 12 | 14 | 12 | 14 |
| 15 | 11 | 13 | 13 | 16 | 12 | 15 | 12 | 14 | 13 | 15 | 12 | 15 |
| 16 | 11 | 13 | 13 | 16 | 12 | 15 | 12 | 14 | 13 | 15 | 12 | 15 |
| 17 | 9 | 11 | 15 | 17 | 11 | 14 | 12 | 14 | 12 | 14 | 11 | 14 |
| 18 | 9 | 11 | 15 | 17 |  |  |  |  | 12 | 14 |  |  |
| 19 | 9 | 11 | 15 | 17 |  |  |  |  | 12 | 14 |  |  |
| 20 | 13 | 16 | 14 | 17 | 11 | 13 | 11 | 12 | 12 | 14 | 11 | 13 |
| 30 | 11 | 13 | 13 | 16 | 10 | 12 | 11 | 12 | 11 | 13 | 10 | 12 |
| 40 | 10 | 12 | 12 | 15 | 10 | 11 | 11 | 12 | 11 | 13 | 10 | 11 |
| 50 | 11 | 13 | 13 | 16 | 11 | 13 | 11 | 12 | 11 | 13 | 11 | 13 |
| 60 | 11 | 13 | 13 | 16 | 11 | 13 | 11 | 12 | 11 | 13 | 11 | 13 |
| 70 | 9 | 11 | 16 | 19 | 10 | 12 | 11 | 12 | 11 | 13 | 10 | 12 |
| 80 | 9 | 11 | 16 | 19 |  |  |  |  | 11 | 13 |  |  |
| AVERAGE | 10 | 12 | 14 | 16 | 12 | 14 | 11 | 13 | 12 | 15 | 12 | 14 |

Note: **Composites**: Quant Reason = Quantitative Reasoning, Aud Mem Span = Auditory Memory Span, Percep. Speed = Perceptual Speed, Cog Efficiency = Cognitive Efficiency. **Tests:** NS = Number Series, AS = Analysis-Synthesis. MfW = Memory for Words, SRep = Sentence Repetition, NR = Numbers Reversed, NPM = Number–Pattern Matching, LPM = Letter-Pattern Matching, PV = Picture Vocabulary

Differences required for statistical significance are based on the standard errors of measurement of each test for each age group and calculated with the following formula:

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