



## Technical Report #6

# Extended Norms

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## Overview

This technical report provides information about the derivation and use of new extended norms for several subtest and composite scores for the Wechsler Intelligence Scale for Children (5th ed.; WISC-V; Wechsler, 2014). These norms were developed in response to requests from the National Association for Gifted Children (NAGC). They are designed to be used to more clearly identify highly gifted children with composite scores far above 130. The extended norms are useful when a child's scaled score on one or more subtests is at the maximum value (i.e., 19 points). These extended norms raise the upper end of the score range for the subtests to a maximum value of 28 points and for composite scores to 210 points.

## Background

The WISC-V subtests each have a range of total raw scores that translate to a scaled score of 19 at the varying age bands. This range differs by subtest and by age. Not all subtests have extensive room for extension in this range, especially at older ages, and extending the scaled score range to 28 is not always possible. Therefore, the potential clinical utility is greatest for younger children, and the upper limit of the extended norms' scaled scores differ by subtest and by age.

Similar extended norms were published for the Wechsler Intelligence Scale for Children (4th ed.; WISC-IV; Wechsler, 2003) several years after publication (Zhu, Cayton, Weiss, & Gabel, 2008). Many practitioners have inquired about the delay between the initial publication and the extended norms release. This delay is related to the need to collect appropriate validity data to validate extended norms. Specifically, the validity study requires WISC-V scores from a large sample of younger children whose performance, on multiple subtests, exceeds the minimum total raw score needed to obtain a scaled score of 19. As the norms must be available before these difficult-to-find cases can be located, the endeavor can take many years after the initial publication. The authors wish to thank and acknowledge the many clinicians who contributed cases to this sample.

It is important to note that the extended norms are not useful for most children. Among the 2,200 cases in the WISC–V normative sample, only 16 children obtained any composite score of 150 or higher. According to the bell curve, out of 20,000,000 same-age peers, only one child would be expected to obtain an FSIQ of 180 or higher.

## Supporting Information

### Standardization and Norms Development

The extended norms were developed using the WISC–V normative sample and the normative information procedures described in chapter 3 of the *WISC–V Technical and Interpretive Manual*, and a highly gifted sample provided by psychologists from the NAGC. NAGC experts confirmed that scores from these cases were as expected. The extended norms are based on the same metrics used in all Wechsler intelligence scales and are consistent with the normal curve.

### Highly Gifted Special Group Study

The NAGC sample contained 108 usable cases with a mean age of 9.6 years with a standard deviation of 2.2 years and an age range of 6–16 years. The sample consisted of 71% males and 29% females. Table 1 reports the mean subtest and composite scores of the sample. Table 1 shows that mean composite scores based on the extended norms average about 1 to 2 points higher than the corresponding means based on the regular norms. The maximum score and variance for each composite score increased. As expected, the composite scores with the highest *g*-loadings (e.g., VCI, FRI, FSIQ, VEI, EFI, GAI, and EGAI), show the largest maximum score increases.

About 43% of children in the highly gifted sample showed increased FSIQ scores when the extended norms were used. These results indicate that the WISC–V extended norms improved differentiation among the highly gifted children.

**Table 1. Mean Performance of Highly Intellectually Gifted Group  
(National Association for Gifted Children)**

<b>Subtest/Composite Score</b>	<b>Mean</b>	<b>SD</b>	<b><i>n</i></b>	<b>Minimum</b>	<b>Maximum</b>
Similarities Extended	18.1	2.8	108	10	26
Vocabulary Extended	16.9	2.0	108	12	22
Information Extended	17.3	2.6	99	12	25
Comprehension Extended	18.1	3.4	94	11	25
Block Design Extended	14.4	3.0	108	8	22
Visual Puzzles Extended	14.6	2.3	108	9	22
Matrix Reasoning Extended	15.0	3.7	108	6	26
Figure Weights Extended	15.2	2.5	108	5	20
Picture Concepts Extended	13.6	2.9	74	6	20
Arithmetic Extended	15.1	3.1	72	8	22
Digit Span Extended	14.4	3.7	108	4	26
Picture Span Extended	13.7	3.2	108	4	20
Letter-Number Sequencing Extended	14.0	2.4	52	7	20
Coding Extended	12.0	3.2	108	1	20
Symbol Search Extended	12.5	3.4	108	1	21
Cancellation Extended	10.1	3.2	59	2	17
Verbal Comprehension Index	140.7	10.2	108	116	155
Verbal Comprehension Index Extended	143.5	13.1	108	116	180
Visual Spatial Index	125.7	13.1	108	97	155
Visual Spatial Index Extended	126.1	13.9	108	97	164
Fluid Reasoning Index	128.6	12.9	108	85	155
Fluid Reasoning Index Extended	129.7	15.2	108	85	171
Working Memory Index	121.9	15.1	108	74	155
Working Memory Index Extended	122.6	16.3	108	74	162
Processing Speed Index	112.7	16.3	108	66	144
Processing Speed Index Extended	112.9	16.6	108	66	148
Full Scale IQ	134.9	10.4	108	102	156
Full Scale IQ Extended	136.3	11.5	108	102	162
Verbal (Expanded Crystallized) Index	141.9	8.3	94	118	155
Verbal (Expanded Crystallized) Index Extended	145.8	12.3	94	118	177
Expanded Fluid Index	131.3	13.6	67	84	155
Expanded Fluid Index Extended	132.1	14.7	67	84	167
Quantitative Reasoning Index	129.7	15.1	72	80	155
Quantitative Reasoning Index Extended	130.0	15.6	72	80	158
Auditory Working Memory Index	123.9	14.2	52	84	151
Auditory Working Memory Index Extended	124.4	15.0	52	84	155
Nonverbal Index	129.9	13.6	108	92	157
Nonverbal Index Extended	130.6	14.3	108	92	160
General Ability Index	136.7	9.6	108	112	157
General Ability Index Extended	138.3	11.0	108	112	168
Expanded General Ability Index	138.1	7.7	70	121	155
Expanded General Ability Index Extended	140.5	10.1	70	121	166
Cognitive Proficiency Index	121.2	15.0	108	75	151
Cognitive Proficiency Index Extended	121.7	15.7	108	75	157

## **Deriving the Extended Subtest Scaled Scores**

Extended subtest scaled scores are derived in the same manner as the published subtest scaled scores. Locate the section of Table 2 that corresponds to the child's test age. For each subtest, locate the child's total raw score in the column corresponding to that subtest, and then read across the row to the far left or right column to obtain the extended scaled score.

## **Deriving the Extended Composite Scores**

Extended composite scores are derived in the same manner as the published composite scores. Sum the scaled scores for the subtests that contribute to that composite score. Tables 3–12 present the extended composite score equivalents of the sums of scaled scores. Each table also includes percentile ranks and confidence intervals.

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age**

Ages 6:0–6:3																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	36–38	27–28	20	27–28	51–55	28–30	25–26	18	35–36	36–37	18	17	19	80–83	20–21	19	18
19	39–41	29–30	21	29	56–59	31–32	27	19	37–39	38–39	19	18	20	84–88	22	20–21	19
20	42–44	31–32	22	30–31	60–63	33–34	28–29	20	40–41	40	20	19	21	89–93	23	22	20
21	45–46	33–34	—	32	64–67	35–36	30	21	42–43	41	21	—	22	94–98	24	23	21
22	47–48	35–36	23	33	68–70	37–38	31	22	44–45	42	22	20	23	99–102	25	24	22
23	49–50	37	—	34	71–73	39–40	32	—	46–47	—	23	21	24	103–107	26	25–26	23
24	51–52	38	24	35	74–75	41–42	33	23	48–49	—	24	—	25	108–111	27	27	24
25	53	39	—	36	—	43–44	34	—	—	—	25	22	26	112–115	28	28–29	25
26	54	40–41	25	37	—	45–46	—	24	—	—	26	—	27	116–118	29	30	26
27	55	42–43	—	38	—	47–48	—	—	—	—	27	23	28	119–121	30	31–32	27
28	56–58	44–46	26–32	39–54	—	49–54	—	25–29	—	—	28–31	24–27	29–30	122–128	31–38	33–34	28

Ages 6:4–6:7																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	37–39	28–29	21	28–29	55–59	29–31	25–26	19	36–37	37–38	19	18	20	81–84	21	20	18
19	40–42	30–31	22	30–31	60–63	32–33	27–28	20	38–40	39–40	20	19	21	85–89	22	21–22	19
20	43–45	32–33	23	32	64–67	34–35	29–30	21	41–42	41	21	20	22	90–94	23	23	20
21	46–47	34–35	—	33	68–70	36–37	31	22	43–44	42	22	—	23	95–99	24	24	21
22	48–49	36–37	24	34	71–73	38–39	32	23	45–46	—	23	21	24	100–104	25	25–26	22
23	50–51	38	—	35	74–75	40–41	33	—	47–48	—	24	22	25	105–108	26	27	23
24	52–53	39	25	36	—	42–43	34	24	49	—	25	—	26	109–112	27	28	24
25	54	40	—	37	—	44–45	—	—	—	—	26	23	27	113–116	28	29–30	25
26	55	41–42	26	38	—	46–47	—	25	—	—	27	—	28	117–119	29	31	26
27	56	43–44	—	39	—	48–49	—	—	—	—	28	24	29	120–122	30	32–33	27
28	57–58	45–46	27–32	40–54	—	50–54	—	26–29	—	—	29–31	25–27	30	123–128	31–38	34	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (*continued*)**

Ages 6:8–6:11																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	38–40	29–30	22	30	59–63	30–32	26–27	20	37–38	39	19	18	20	83–86	22	21	18
19	41–42	31–32	23	31–32	64–67	33–34	28–29	21	39–41	40–41	20	19	21	87–91	23	22–23	19
20	43–45	33	24	33	68–70	35–36	30	22	42–43	42	21	20	22	92–96	24	24	20
21	46–48	34–35	—	34	71–73	37–38	31	23	44–45	—	22	21	23	97–101	25	25	21
22	49–50	36–37	25	35	74–75	39–40	32	—	46–47	—	23	—	24	102–105	26	26–27	22
23	51–52	38	—	36	—	41–42	33	24	48–49	—	24	22	25	106–110	27	28	23
24	53	39	26	37	—	43–44	34	—	—	—	25	—	26	111–114	28	29	24
25	54	40	—	38	—	45–46	—	25	—	—	26	23	27	115–117	29	30–31	25
26	55	41–42	27	39	—	47–48	—	—	—	—	27	—	28	118–120	30	32	26
27	56	43–44	—	40	—	49–50	—	26	—	—	28	24	29	121–123	31	33	27
28	57–58	45–46	28–32	41–54	—	51–54	—	27–29	—	—	29–31	25–27	30	124–128	32–38	34	28

Ages 7:0–7:3																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	39–41	31	23	31–32	62–66	31–33	27	20	38–39	40	20	19	21	85–88	23	22	18
19	42–43	32–33	24	33	67–70	34–35	28–29	21	40–42	41	21	20	22	89–93	24	23–24	19
20	44–46	34	25	34	71–73	36–37	30	22	43–44	42	22	21	23	94–98	25	25	20
21	47–49	35–36	—	35	74–75	38–39	31	23	45–46	—	23	—	24	99–103	26	26	21
22	50–51	37–38	26	36	—	40–41	32	24	47–48	—	24	22	25	104–107	27	27	22
23	52	39	—	37	—	42–43	33	—	49	—	25	23	26	108–111	28	28	23
24	53	40	27	38	—	44–45	34	25	—	—	26	—	27	112–115	29	29	24
25	54	41	—	39	—	46–47	—	—	—	—	27	24	28	116–118	30	30–31	25
26	55	42–43	28	40	—	48–49	—	26	—	—	28	—	29	119–121	31	32	26
27	56	44–45	—	41	—	50–51	—	—	—	—	29	25	30	122–124	32	33	27
28	57–58	46	29–32	42–54	—	52–54	—	27–29	—	—	30–31	26–27	—	125–128	33–38	34	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 7:4–7:7																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	40–42	32–33	24	32–33	65–69	32–34	27–28	21	39–40	41	21	19	21	87–89	23–24	23	18
19	43–44	34	25	34	70–72	35–36	29	22	41–43	42	22	20	22	90–95	25	24–25	19
20	45–47	35	—	35	73–74	37–38	30	23	44–45	—	23	21	23	96–100	26	26	20
21	48–49	36–37	26	36	75	39–40	31	24	46–47	—	24	—	24	101–105	27	27	21
22	50–51	38–39	—	37	—	41–42	32	25	48	—	25	22	25	106–109	28	28	22
23	52–53	40	27	38	—	43–44	33	—	49	—	26	23	26	110–113	29	29	23
24	54	41	—	39	—	45–46	34	26	—	—	27	—	27	114–116	30	30	24
25	55	42	28	40	—	47–48	—	—	—	—	28	24	28	117–119	31	31	25
26	56	43–44	—	41	—	49–50	—	27	—	—	29	—	29	120–122	32	32	26
27	57	45	29	42	—	51–52	—	—	—	—	30	25	30	123–125	33	33	27
28	58	46	30–32	43–54	—	53–54	—	28–29	—	—	31	26–27	—	126–128	34–38	34	28

Ages 7:8–7:11																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	42–43	32–33	24	33–34	68–71	33–35	27–28	22	40–41	—	21	19	22	89–92	24	24	18
19	44–45	34	25	35	72–74	36–37	29	23	42–43	42	22	20	23	93–97	25	25–26	19
20	46–48	35–36	26	36	75	38–39	30–31	24	44–45	—	23	21	24	98–102	26	27	20
21	49–50	37–38	—	37	—	40–41	32	25	46–47	—	24	—	25	103–107	27	28	21
22	51–52	39–40	27	38	—	42–43	33	26	48	—	25	22	26	108–111	28	29	22
23	53	41	—	39	—	44–45	34	—	49	—	26	23	27	112–114	29	30	23
24	54	42	28	40	—	46–47	—	27	—	—	27	—	—	115–117	30	31	24
25	55	43	—	41	—	48–49	—	—	—	—	28	24	28	118–120	31	32	25
26	56	44	29	42	—	50–51	—	28	—	—	29	—	29	121–123	32	33	26
27	57	45	—	43	—	52–54	—	—	—	—	30	25	30	124–126	33	34	27
28	58	46	30–32	44–54	—	—	—	29	—	—	31	26–27	—	127–128	34–38	—	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 8:0–8:3																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	43–44	33	25	33–34	56–59	34–36	28	23	40–42	33–34	22	20	22	91–94	25	25	18
19	45–46	34	26	35	60–63	37–38	29–30	24	43–44	35–36	23	21	23	95–99	26	26	19
20	47–48	35–36	—	36	64–67	39–40	31	25	45–46	37–38	24	22	24	100–104	27	27	20
21	49–50	37–38	27	37	68–70	41–42	32	26	47–48	39–40	25	—	25	105–109	28	28	21
22	51–52	39–40	—	38	71–74	43–44	33	—	49	41–42	26	23	26	110–113	29	29	22
23	53	41	28	39	75–77	45–46	34	27	—	43–44	27	24	27	114–116	30	30	23
24	54	42	—	40	78–80	47–48	—	—	—	45–46	28	—	28	117–118	31	31	24
25	55	43	29	41	81–83	49–50	—	28	—	47–48	29	25	29	119–121	32	32	25
26	56	44	—	42	84–86	51–52	—	—	—	49–50	30	—	30	122–124	33	33	26
27	57	45	30	43	87–89	53–54	—	29	—	51–52	31	26	—	125–126	34	34	27
28	58	46	31–32	44–54	90–117	—	—	—	—	53–60	—	27	—	127–128	35–38	—	28

Ages 8:4–8:7																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	44–45	34	25	34–35	59–62	35–37	28–29	24	41–42	34–35	22	21	22	93–96	26	26	18
19	46–47	35–36	26	36	63–66	38–39	30	25	43–45	36–37	23	22	23	97–101	27	27	19
20	48–49	37–38	27	37	67–70	40–41	31	26	46–47	38–39	24	—	24	102–106	28	28	20
21	50–51	39–40	—	38	71–74	42–43	32	—	48	40–41	25	23	25	107–110	29	29	21
22	52	41	28	39	75–77	44–45	33	27	49	42–43	26	24	26	111–114	30	30	22
23	53	42	—	40	78–80	46–47	34	—	—	44–45	27	—	27	115–117	31	31	23
24	54	43	29	41	81–83	48–49	—	28	—	46–47	28	25	28	118–119	32	32	24
25	55	44	—	42	84–86	50–51	—	—	—	48–49	29	—	29	120–122	33	33	25
26	56	45	30	43	87–89	52–53	—	29	—	50–51	30	26	30	123–125	34	34	26
27	57	46	—	44	90–92	54	—	—	—	52–53	31	—	—	126–127	35	—	27
28	58	—	31–32	45–54	93–117	—	—	—	—	54–60	—	27	—	128	36–38	—	28



**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 8:8–8:11																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	45–46	35–36	26	34–35	62–65	37–38	29	24	42–43	35–36	23	21	23	95–98	27	27	18
19	47–48	37	—	36–37	66–70	39–40	30	25	44–45	37–38	24	22	24	99–103	28	28	19
20	49–50	38	27	38	71–74	41–42	31	26	46–47	39–40	25	23	25	104–108	29	29	20
21	51	39–40	—	39	75–77	43–44	32	27	48	41–42	26	—	26	109–112	30	30	21
22	52	41–42	28	40	78–80	45–46	33	—	49	43–44	27	24	27	113–115	31	31	22
23	53	43	—	41	81–83	47–48	34	28	—	45–46	28	—	—	116–118	32	32	23
24	54	44	29	42	84–86	49–50	—	—	—	47–48	29	25	28	119–120	33	33	24
25	55	45	—	43	87–89	51–52	—	29	—	49–50	30	—	29	121–123	34	34	25
26	56	46	30	44	90–92	53–54	—	—	—	51–52	31	26	30	124–125	35	—	26
27	57	—	—	45	93–95	—	—	—	—	53–54	—	—	—	126–127	36	—	27
28	58	—	31–32	46–54	96–117	—	—	—	—	55–60	—	27	—	128	37–38	—	28

Ages 9:0–9:3																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	46–47	36	26	35–36	65–69	38–39	29	24	42–43	36–37	24	21	23	97–100	27–28	27	18
19	48–49	37	27	37	70–73	40–41	30	25	44–45	38–39	25	22	24	101–104	29	28	19
20	50	38	—	38	74–77	42–43	31	26	46–47	40–41	26	23	25	105–109	30	29	20
21	51	39–40	28	39	78–80	44–45	32	27	48	42–43	27	24	26	110–113	31	30	21
22	52	41–42	—	40	81–83	46–47	33	—	49	44–45	28	—	27	114–116	32	31	22
23	53	43	29	41	84–86	48–49	34	28	—	46–47	29	25	—	117–119	33	32	23
24	54	44	—	42	87–89	50–51	—	—	—	48–49	30	—	28	120–121	34	33	24
25	55	45	30	43	90–92	52–53	—	29	—	50–51	31	26	29	122–123	35	34	25
26	56	46	—	44	93–95	54	—	—	—	52–53	—	—	30	124–126	36	—	26
27	57	—	31	45	96–98	—	—	—	—	54–55	—	27	—	127–128	37	—	27
28	58	—	32	46–54	99–117	—	—	—	—	56–60	—	—	—	—	38	—	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 9:4–9:7																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	46–47	37	—	35–36	68–72	39–40	29	25	43–44	37–38	24	22	23	99–102	28	28	18
19	48–49	38	27	37–38	73–76	41–42	30	26	45–46	39–40	25	23	24	103–106	29	29	19
20	50–51	39	28	39	77–80	43–44	31	27	47	41–42	26	—	25	107–110	30	30	20
21	52	40–41	—	40	81–83	45–46	32	—	48	43–44	27	24	26	111–114	31	31	21
22	53	42–43	29	41	84–86	47–48	33	28	49	45–46	28	—	27	115–117	32	32	22
23	54	44	—	42	87–89	49–50	34	—	—	47–48	29	25	28	118–120	33	33	23
24	55	45	30	43	90–92	51–52	—	29	—	49–50	30	—	29	121–122	34	34	24
25	56	46	—	44	93–95	53–54	—	—	—	51–52	31	26	30	123–124	35	—	25
26	57	—	31	45	96–98	—	—	—	—	53–54	—	—	—	125–126	36	—	26
27	58	—	—	46	99–101	—	—	—	—	55–56	—	27	—	127–128	37	—	27
28	—	—	32	47–54	102–117	—	—	—	—	57–60	—	—	—	—	38	—	28

Ages 9:8–9:11																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	47–48	38	27	36–37	71–75	40–41	29	25	43–44	38–39	25	22	23	101–104	29	28	18
19	49–50	39	—	38	76–78	42–43	30	26	45–46	40–41	26	23	24	105–108	30	29	19
20	51	40	28	39–40	79–82	44–45	31	27	47	42–43	27	24	25	109–112	31	30	20
21	52	41–42	—	41	83–85	46–47	32	—	48	44–45	28	—	26	113–115	32	31	21
22	53	43–44	29	42	86–88	48–49	33	28	49	46–47	29	25	27	116–118	33	32	22
23	54	45	—	43	89–91	50–51	34	—	—	48–49	30	—	28	119–121	34	33	23
24	55	46	30	44	92–94	52–53	—	29	—	50–51	31	26	29	122–123	35	34	24
25	56	—	—	45	95–97	54	—	—	—	52–53	—	—	30	124–125	36	—	25
26	57	—	31	46	98–100	—	—	—	—	54–55	—	27	—	126–127	37	—	26
27	58	—	—	47	101–103	—	—	—	—	56–57	—	—	—	128	38	—	27
28	—	—	32	48–54	104–117	—	—	—	—	58–60	—	—	—	—	—	—	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 10:0–10:3																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	48–49	39	27	37	74–77	41–42	30	25	44–45	39–40	25	23	24	103–106	30	28	18
19	50–51	40	—	38–39	78–81	43–44	31	26	46	41–42	26	—	25	107–110	31	29	19
20	52	41	28	40–41	82–85	45–46	32	27	47	43–44	27	24	26	111–114	32	30	20
21	53	42–43	—	42	86–88	47–48	33	—	48	45–46	28	25	27	115–117	33	31	21
22	54	44	29	43	89–91	49–50	34	28	49	47–48	29	—	28	118–120	34	32	22
23	55	45	—	44	92–94	51–52	—	—	—	49–50	30	26	29	121–122	35	33	23
24	56	46	30	45	95–97	53–54	—	29	—	51–52	31	—	—	123–124	36	34	24
25	57	—	—	46	98–100	—	—	—	—	53–54	—	27	30	125–126	37	—	25
26	—	—	31	47	101–103	—	—	—	—	55	—	—	—	127–128	38	—	26
27	58	—	—	48	104–106	—	—	—	—	56–57	—	—	—	—	—	—	27
28	—	—	32	49–54	107–117	—	—	—	—	58–60	—	—	—	—	—	—	28

Ages 10:4–10:7																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	48–50	40	27	37–38	76–79	42–43	31	26	44–45	40–41	26	23	24	105–108	30	29	18
19	51	41	28	39–40	80–83	44–45	32	27	46	42–43	27	24	25	109–112	31	30	19
20	52	42	—	41	84–87	46–47	33	—	47	44–45	28	—	26	113–116	32	31	20
21	53	43–44	29	42	88–90	48–49	34	28	48	46–47	29	25	27	117–118	33	32	21
22	54	45	—	43	91–93	50–51	—	—	49	48–49	30	—	28	119–121	34	33	22
23	55	46	30	44	94–96	52–53	—	29	—	50–51	31	26	29	122–123	35	34	23
24	56	—	—	45	97–99	54	—	—	—	52	—	—	—	124–125	36	—	24
25	57	—	31	46	100–102	—	—	—	—	53–54	—	27	30	126–127	37	—	25
26	—	—	—	47	103–105	—	—	—	—	55–56	—	—	—	128	38	—	26
27	58	—	32	48	106–108	—	—	—	—	57–58	—	—	—	—	—	—	27
28	—	—	—	49–54	109–117	—	—	—	—	59–60	—	—	—	—	—	—	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 10:8–10:11																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	49–50	41	—	38–39	79–82	42–43	31	26	44–45	41–42	26	23	24	107–110	31	30	18
19	51	42	28	40	83–86	44–45	32	27	46	43–44	27	24	25	111–114	32	31	19
20	52	43	—	41–42	87–90	46–47	33	—	47	45–46	28	25	26	115–117	33	32	20
21	53	44	29	43	91–93	48–49	34	28	48	47–48	29	—	27	118–120	34	33	21
22	54	45	—	44	94–96	50–51	—	—	49	49	30	26	28	121–122	35	34	22
23	55	46	30	45	97–99	52–53	—	29	—	50–51	31	—	29	123–124	36	—	23
24	56	—	—	46	100–102	54	—	—	—	52–53	—	27	—	125–126	37	—	24
25	57	—	31	47	103–105	—	—	—	—	54–55	—	—	30	127–128	38	—	25
26	—	—	—	48	106–107	—	—	—	—	56	—	—	—	—	—	—	26
27	58	—	32	49	108–110	—	—	—	—	57–58	—	—	—	—	—	—	27
28	—	—	—	50–54	111–117	—	—	—	—	59–60	—	—	—	—	—	—	28

Ages 11:0–11:3																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	50–51	41	28	39	81–84	43–44	31	26	45	42–43	27	23	25	109–112	32	30	18
19	52	42	—	40–41	85–88	45–46	32	27	46	44–45	28	24	26	113–115	33	31	19
20	53	43	—	42	89–92	47–48	33	—	47	46–47	29	25	27	116–118	34	32	20
21	54	44	29	43	93–95	49–50	34	28	48	48–49	30	—	28	119–121	35	33	21
22	55	45	—	44	96–98	51–52	—	—	49	50	31	26	29	122–123	36	34	22
23	56	46	30	45	99–101	53–54	—	29	—	51–52	—	—	—	124–125	37	—	23
24	—	—	—	46	102–103	—	—	—	—	53	—	27	30	126–127	38	—	24
25	57	—	31	47	104–106	—	—	—	—	54–55	—	—	—	128	—	—	25
26	—	—	—	48	107–108	—	—	—	—	56	—	—	—	—	—	—	26
27	58	—	32	49	109–111	—	—	—	—	57–58	—	—	—	—	—	—	27
28	—	—	—	50–54	112–117	—	—	—	—	59–60	—	—	—	—	—	—	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 11:4–11:7																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	50–51	41	28	40	83–86	44–45	31	26	45	43–44	27	24	25	111–113	32	31	18
19	52	42	—	41	87–90	46–47	32	27	46	45–46	28	25	26	114–116	33	32	19
20	53	43	29	42	91–94	48–49	33	—	47	47–48	29	—	27	117–119	34	33	20
21	54	44	—	43	95–97	50–51	34	28	48	49–50	30	26	28	120–122	35	34	21
22	55	45	30	44	98–100	52–53	—	—	49	51	31	—	29	123–124	36	—	22
23	56	46	—	45	101–103	54	—	29	—	52–53	—	27	—	125–126	37	—	23
24	—	—	31	46	104–106	—	—	—	—	54	—	—	30	127–128	38	—	24
25	57	—	—	47	107–108	—	—	—	—	55–56	—	—	—	—	—	—	25
26	—	—	—	48	109–110	—	—	—	—	57	—	—	—	—	—	—	26
27	58	—	32	49	111–113	—	—	—	—	58–59	—	—	—	—	—	—	27
28	—	—	—	50–54	114–117	—	—	—	—	60	—	—	—	—	—	—	28

Ages 11:8–11:11																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	50–51	42	28	40	85–88	44–45	31	27	45	44–45	27	24	25	112–114	33	31	18
19	52	43	—	41	89–92	46–47	32	—	46	46–47	28	25	26	115–117	34	32	19
20	53	44	29	42–43	93–96	48–49	33	28	47	48	29	—	27	118–120	35	33	20
21	54	45	—	44	97–99	50–51	34	—	48	49–50	30	26	28	121–123	36	34	21
22	55	46	30	45	100–102	52–53	—	29	49	51	31	—	29	124–125	37	—	22
23	56	—	—	46	103–105	54	—	—	—	52–53	—	27	—	126–127	38	—	23
24	—	—	31	47	106–107	—	—	—	—	54	—	—	30	128	—	—	24
25	57	—	—	48	108–110	—	—	—	—	55–56	—	—	—	—	—	—	25
26	—	—	—	49	111–112	—	—	—	—	57	—	—	—	—	—	—	26
27	58	—	32	50	113–114	—	—	—	—	58–59	—	—	—	—	—	—	27
28	—	—	—	51–54	115–117	—	—	—	—	60	—	—	—	—	—	—	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 12:0–12:3																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	51–52	42	28	41	87–90	45–46	31	27	45	44–45	28	24	25	113–115	33	31	18
19	53	43	—	42	91–94	47–48	32	—	46	46–47	29	25	26	116–118	34	32	19
20	54	44	29	43	95–98	49–50	33	28	47	48–49	30	—	27	119–121	35	33	20
21	55	45	—	44	99–101	51–52	34	—	48	50–51	31	26	28	122–124	36	34	21
22	56	46	30	45	102–104	53–54	—	29	49	52	—	—	29	125–126	37	—	22
23	—	—	—	46	105–107	—	—	—	—	53–54	—	27	30	127	38	—	23
24	57	—	31	47	108–109	—	—	—	—	55	—	—	—	128	—	—	24
25	—	—	—	48	110–111	—	—	—	—	56–57	—	—	—	—	—	—	25
26	58	—	—	49	112–113	—	—	—	—	58	—	—	—	—	—	—	26
27	—	—	32	50	114–115	—	—	—	—	59	—	—	—	—	—	—	27
28	—	—	—	51–54	116–117	—	—	—	—	60	—	—	—	—	—	—	28

Ages 12:4–12:7																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	52	42	—	41	89–92	46–47	31	27	45	45–46	28	24	25	114–116	34	31	18
19	53	43	29	42	93–96	48–49	32	—	46	47–48	29	25	26	117–119	35	32	19
20	54	44	—	43–44	97–99	50–51	33	28	47	49–50	30	26	27	120–122	36	33	20
21	55	45	30	45	100–102	52–53	34	—	48	51	31	—	28	123–124	37	34	21
22	56	46	—	46	103–105	54	—	29	49	52	—	27	29	125–126	38	—	22
23	—	—	31	47	106–108	—	—	—	—	53–54	—	—	30	127–128	—	—	23
24	57	—	—	48	109–110	—	—	—	—	55	—	—	—	—	—	—	24
25	—	—	—	49	111–112	—	—	—	—	56–57	—	—	—	—	—	—	25
26	58	—	32	50	113–114	—	—	—	—	58	—	—	—	—	—	—	26
27	—	—	—	51	115–116	—	—	—	—	59	—	—	—	—	—	—	27
28	—	—	—	52–54	117	—	—	—	—	60	—	—	—	—	—	—	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 12:8–12:11																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	52	42	—	41	91–94	46–47	32	27	45	46–47	28	24	—	115–117	34	31	18
19	53	43	29	42–43	95–97	48–49	33	—	46	48–49	29	25	26	118–120	35	32	19
20	54	44	—	44	98–100	50–51	34	28	47	50–51	30	26	27	121–123	36	33	20
21	55	45	30	45	101–103	52–53	—	—	48	52	31	—	28	124–125	37	34	21
22	56	46	—	46	104–106	54	—	29	49	53	—	27	29	126–127	38	—	22
23	—	—	31	47	107–109	—	—	—	—	54–55	—	—	30	128	—	—	23
24	57	—	—	48	110–111	—	—	—	—	56	—	—	—	—	—	—	24
25	—	—	—	49	112–113	—	—	—	—	57–58	—	—	—	—	—	—	25
26	58	—	32	50	114–115	—	—	—	—	59	—	—	—	—	—	—	26
27	—	—	—	51	116–117	—	—	—	—	60	—	—	—	—	—	—	27
28	—	—	—	52–54	—	—	—	—	—	—	—	—	—	—	—	—	28

  

Ages 13:0–13:3																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	52–53	42	—	41	93–95	47–48	32	27	45	47–48	29	24	—	116–118	35	31	18
19	54	43	29	42–43	96–98	49	33	—	46	49–50	30	25	26	119–121	36	32	19
20	55	44	—	44	99–101	50–51	34	28	47	51–52	31	26	27	122–123	37	33	20
21	—	45	30	45–46	102–104	52–53	—	—	48	53	—	—	28	124–125	38	34	21
22	56	46	—	47	105–107	54	—	29	49	54	—	27	29	126–127	—	—	22
23	—	—	31	48	108–110	—	—	—	—	55	—	—	30	128	—	—	23
24	57	—	—	49	111–112	—	—	—	—	56	—	—	—	—	—	—	24
25	—	—	—	50	113–114	—	—	—	—	57–58	—	—	—	—	—	—	25
26	58	—	32	51	115–116	—	—	—	—	59	—	—	—	—	—	—	26
27	—	—	—	52	117	—	—	—	—	60	—	—	—	—	—	—	27
28	—	—	—	53–54	—	—	—	—	—	—	—	—	—	—	—	—	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 13:4–13:7																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	52–53	42	—	42	95–97	47–48	32	27	45	48–49	29	25	26	117–119	35	32	18
19	54	43	29	43	98–100	49–50	33	—	46	50–51	30	26	27	120–122	36	33	19
20	55	44	—	44–45	101–103	51–52	34	28	47	52–53	31	—	28	123–124	37	34	20
21	56	45	30	46	104–106	53–54	—	—	48	54	—	27	29	125–126	38	—	21
22	—	46	—	47	107–108	—	—	29	49	55	—	—	30	127–128	—	—	22
23	57	—	31	48	109–111	—	—	—	—	56	—	—	—	—	—	—	23
24	—	—	—	49	112–113	—	—	—	—	57	—	—	—	—	—	—	24
25	58	—	—	50	114–115	—	—	—	—	58	—	—	—	—	—	—	25
26	—	—	32	51	116	—	—	—	—	59	—	—	—	—	—	—	26
27	—	—	—	52	117	—	—	—	—	60	—	—	—	—	—	—	27
28	—	—	—	53–54	—	—	—	—	—	—	—	—	—	—	—	—	28

Ages 13:8–13:11																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	53	42	—	42	96–98	47–48	32	27	45	48–49	29	25	26	118–120	36	32	18
19	54	43	29	43–44	99–101	49–50	33	—	46	50–51	30	26	27	121–123	37	33	19
20	55	44	—	45	102–104	51–52	34	28	47	52–53	31	—	28	124–125	38	34	20
21	56	45	30	46	105–107	53–54	—	—	48	54	—	27	29	126–127	—	—	21
22	—	46	—	47	108–110	—	—	29	49	55	—	—	30	128	—	—	22
23	57	—	31	48	111–112	—	—	—	—	56	—	—	—	—	—	—	23
24	—	—	—	49	113–114	—	—	—	—	57	—	—	—	—	—	—	24
25	58	—	—	50	115–116	—	—	—	—	58–59	—	—	—	—	—	—	25
26	—	—	32	51	117	—	—	—	—	60	—	—	—	—	—	—	26
27	—	—	—	52	—	—	—	—	—	—	—	—	—	—	—	—	27
28	—	—	—	53–54	—	—	—	—	—	—	—	—	—	—	—	—	28



**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 14:0–14:3																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	53	42	—	42–43	97–100	48–49	32	27	45	49–50	30	25	26	119–120	36	32	18
19	54	43	29	44	101–103	50–51	33	—	46	51–52	31	26	27	121–123	37	33	19
20	55	44	—	45–46	104–106	52–53	34	28	47	53–54	—	—	28	124–125	38	34	20
21	56	45	30	47	107–109	54	—	—	48	55	—	27	29	126–127	—	—	21
22	57	46	—	48	110–111	—	—	29	49	56	—	—	30	128	—	—	22
23	—	—	31	49	112–113	—	—	—	—	57	—	—	—	—	—	—	23
24	—	—	—	50	114–115	—	—	—	—	58	—	—	—	—	—	—	24
25	58	—	—	51	116–117	—	—	—	—	59	—	—	—	—	—	—	25
26	—	—	32	52	—	—	—	—	—	60	—	—	—	—	—	—	26
27	—	—	—	53	—	—	—	—	—	—	—	—	—	—	—	—	27
28	—	—	—	54	—	—	—	—	—	—	—	—	—	—	—	—	28

Ages 14:4–14:7																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	53	42	—	42–43	98–101	48–49	33	27	45	49–50	30	25	26	120–121	36	33	18
19	54	43	29	44–45	102–104	50–51	34	—	46	51–52	31	26	27	122–124	37	34	19
20	55	44	—	46	105–107	52–53	—	28	47	53–54	—	27	28	125–126	38	—	20
21	56	45	30	47	108–110	54	—	—	48	55	—	—	29	127	—	—	21
22	57	46	—	48	111–112	—	—	29	49	56	—	—	30	128	—	—	22
23	—	—	31	49	113–114	—	—	—	—	57	—	—	—	—	—	—	23
24	—	—	—	50	115–116	—	—	—	—	58	—	—	—	—	—	—	24
25	58	—	—	51	117	—	—	—	—	59	—	—	—	—	—	—	25
26	—	—	32	52	—	—	—	—	—	60	—	—	—	—	—	—	26
27	—	—	—	53	—	—	—	—	—	—	—	—	—	—	—	—	27
28	—	—	—	54	—	—	—	—	—	—	—	—	—	—	—	—	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 14:8–14:11																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	53	43	—	43	99–102	49–50	33	27	46	50–51	30	25	—	120–121	37	33	18
19	54	44	29	44–45	103–105	51	34	—	47	52–53	31	26	27	122–124	38	34	19
20	55	45	—	46	106–108	52–53	—	28	48	54–55	—	27	28	125–126	—	—	20
21	56	46	30	47–48	109–111	54	—	—	49	56	—	—	29	127	—	—	21
22	57	—	—	49	112–113	—	—	29	—	57	—	—	30	128	—	—	22
23	—	—	31	50	114–115	—	—	—	—	58	—	—	—	—	—	—	23
24	—	—	—	51	116–117	—	—	—	—	59	—	—	—	—	—	—	24
25	58	—	—	52	—	—	—	—	—	60	—	—	—	—	—	—	25
26	—	—	32	53	—	—	—	—	—	—	—	—	—	—	—	—	26
27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27
28	—	—	—	54	—	—	—	—	—	—	—	—	—	—	—	—	28

Ages 15:0–15:3																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	53	43	—	43–44	100–103	49–50	33	—	46	50–51	30	25	—	121–122	37	33	18
19	54	44	29	45	104–106	51	34	28	47	52–53	31	26	27	123–124	38	34	19
20	55	45	—	46–47	107–109	52–53	—	—	48	54–55	—	27	28	125–126	—	—	20
21	56	46	30	48	110–112	54	—	29	49	56	—	—	29	127	—	—	21
22	57	—	—	49	113–114	—	—	—	—	57	—	—	30	128	—	—	22
23	—	—	31	50	115–116	—	—	—	—	58	—	—	—	—	—	—	23
24	—	—	—	51	117	—	—	—	—	59	—	—	—	—	—	—	24
25	58	—	—	52	—	—	—	—	—	60	—	—	—	—	—	—	25
26	—	—	32	53	—	—	—	—	—	—	—	—	—	—	—	—	26
27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27
28	—	—	—	54	—	—	—	—	—	—	—	—	—	—	—	—	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 15:4–15:7																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	54	44	—	44	101–104	50–51	33	—	46	51–52	—	26	27	121–122	37	33	18
19	55	45	29	45–46	105–107	52	34	28	47	53–54	31	—	28	123–124	38	34	19
20	56	46	—	47	108–110	53	—	—	48	55–56	—	27	29	125–126	—	—	20
21	57	—	30	48	111–113	54	—	29	49	57	—	—	30	127	—	—	21
22	—	—	—	49	114–115	—	—	—	—	58	—	—	—	128	—	—	22
23	—	—	31	50	116	—	—	—	—	59	—	—	—	—	—	—	23
24	58	—	—	51	117	—	—	—	—	60	—	—	—	—	—	—	24
25	—	—	—	52	—	—	—	—	—	—	—	—	—	—	—	—	25
26	—	—	32	53	—	—	—	—	—	—	—	—	—	—	—	—	26
27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27
28	—	—	—	54	—	—	—	—	—	—	—	—	—	—	—	—	28

Ages 15:8–15:11																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	54	44	29	44–45	102–105	50–51	33	—	46	51–52	—	26	27	121–122	37	33	18
19	55	45	—	46–47	106–108	52	34	28	47	53–54	31	—	28	123–124	38	34	19
20	56	46	30	48	109–111	53	—	—	48	55–56	—	27	29	125–126	—	—	20
21	57	—	—	49	112–113	54	—	29	49	57–58	—	—	30	127	—	—	21
22	—	—	31	50	114–115	—	—	—	—	59	—	—	—	128	—	—	22
23	—	—	—	51	116	—	—	—	—	60	—	—	—	—	—	—	23
24	58	—	—	52	117	—	—	—	—	—	—	—	—	—	—	—	24
25	—	—	32	—	—	—	—	—	—	—	—	—	—	—	—	—	25
26	—	—	—	53	—	—	—	—	—	—	—	—	—	—	—	—	26
27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27
28	—	—	—	54	—	—	—	—	—	—	—	—	—	—	—	—	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (continued)**

Ages 16:0–16:3																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	55	45	29	45	103–106	51	33	—	46	52–53	—	26	27	122–123	37	33	18
19	56	46	—	46–47	107–109	52	34	28	47	54–55	31	—	28	124–125	38	34	19
20	57	—	30	48	110–112	53	—	—	48	56–57	—	27	29	126–127	—	—	20
21	—	—	—	49	113–114	54	—	29	49	58	—	—	30	128	—	—	21
22	—	—	31	50	115	—	—	—	—	59	—	—	—	—	—	—	22
23	58	—	—	51	116	—	—	—	—	60	—	—	—	—	—	—	23
24	—	—	—	52	117	—	—	—	—	—	—	—	—	—	—	—	24
25	—	—	32	—	—	—	—	—	—	—	—	—	—	—	—	—	25
26	—	—	—	53	—	—	—	—	—	—	—	—	—	—	—	—	26
27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27
28	—	—	—	54	—	—	—	—	—	—	—	—	—	—	—	—	28

Ages 16:4–16:7																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	55	45	—	45–46	104–107	52	—	28	46	53–54	—	26	27	122–123	37	—	18
19	56	46	30	47	108–110	53	34	—	47	55–56	31	—	28	124–125	38	34	19
20	57	—	—	48	111–113	54	—	29	48	57–58	—	27	29	126–127	—	—	20
21	—	—	31	49	114–115	—	—	—	49	59	—	—	30	128	—	—	21
22	—	—	—	50	116	—	—	—	—	60	—	—	—	—	—	—	22
23	58	—	—	51	117	—	—	—	—	—	—	—	—	—	—	—	23
24	—	—	32	52	—	—	—	—	—	—	—	—	—	—	—	—	24
25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25
26	—	—	—	53	—	—	—	—	—	—	—	—	—	—	—	—	26
27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27
28	—	—	—	54	—	—	—	—	—	—	—	—	—	—	—	—	28

**Table 2. Scaled Score Equivalents of Total Raw Scores for Subtests, by Age (*continued*)**

Ages 16:8–16:11																	
Scaled Score	BD	SI	MR	DS	CD	VC	FW	VP	PS	SS	IN	PC	LN	CA	CO	AR	Scaled Score
18	55	—	—	46	104–107	52	—	28	46	54–55	—	26	27	122–123	37	—	18
19	56	46	30	47	108–110	53	34	—	47	56–57	31	—	28	124–125	38	34	19
20	57	—	—	48	111–113	54	—	29	48	58	—	27	29	126–127	—	—	20
21	—	—	31	49	114–115	—	—	—	49	59	—	—	30	128	—	—	21
22	—	—	—	50	116	—	—	—	—	60	—	—	—	—	—	—	22
23	58	—	—	51	117	—	—	—	—	—	—	—	—	—	—	—	23
24	—	—	32	52	—	—	—	—	—	—	—	—	—	—	—	—	24
25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25
26	—	—	—	53	—	—	—	—	—	—	—	—	—	—	—	—	26
27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27
28	—	—	—	54	—	—	—	—	—	—	—	—	—	—	—	—	28

**Table 3. Extended Norms: VCI, VSI, and FRI Equivalents of Sums of Scaled Scores**

Verbal Comprehension Index					Visual Spatial Index					Fluid Reasoning Index				
Sum of Scaled Scores	VCI	90% Confidence Interval	95% Confidence Interval	Percentile Rank	Sum of Scaled Scores	VSI	90% Confidence Interval	95% Confidence Interval	Percentile Rank	Sum of Scaled Scores	FRI	90% Confidence Interval	95% Confidence Interval	Percentile Rank
38	155	144–157	143–158	>99.9	38	155	144–157	143–158	>99.9	38	155	145–157	144–158	>99.9
39	158	147–160	146–161	>99.9	39	158	147–160	146–161	>99.9	39	159	149–161	148–162	>99.9
40	161	150–163	148–164	>99.9	40	161	150–163	148–164	>99.9	40	162	152–164	150–165	>99.9
41	164	152–165	151–167	>99.9	41	164	152–165	151–167	>99.9	41	165	154–167	153–168	>99.9
42	168	156–169	155–170	>99.9	42	168	156–169	155–170	>99.9	42	168	157–169	156–170	>99.9
43	171	159–172	158–173	>99.9	43	171	159–172	158–173	>99.9	43	171	160–172	159–173	>99.9
44	174	162–175	160–176	>99.9	44	174	162–175	160–176	>99.9	44	174	163–175	162–176	>99.9
45	177	164–177	163–178	>99.9	45	177	164–177	163–178	>99.9	45	177	166–178	164–179	>99.9
46	180	167–180	166–181	>99.9	46	181	168–181	167–182	>99.9	46	180	168–180	167–182	>99.9
47	183	170–183	169–184	>99.9	47	184	171–184	170–185	>99.9	47	183	171–183	170–184	>99.9
48	186	173–186	171–187	>99.9	48	187	174–186	172–188	>99.9	48	186	174–186	173–187	>99.9
49	189	175–188	174–190	>99.9	49	190	176–189	175–190	>99.9	49	189	177–189	176–190	>99.9
50	192	178–191	177–192	>99.9	50	194	180–193	179–194	>99.9	50	192	179–192	178–193	>99.9
51	195	181–194	180–195	>99.9	51	197	183–196	182–197	>99.9	51	195	182–194	181–196	>99.9
52	198	184–197	183–198	>99.9	52	200	186–198	184–200	>99.9	52	198	185–197	184–198	>99.9
53	201	186–199	185–201	>99.9	53	204	189–202	188–203	>99.9	53	201	188–200	187–201	>99.9
54	204	189–202	188–203	>99.9	54	207	192–205	191–206	>99.9	54	204	191–203	189–204	>99.9
55	207	192–205	191–206	>99.9	55	209	194–207	193–208	>99.9	55	207	193–206	192–207	>99.9
56	210	195–208	194–209	>99.9	56	210	195–208	194–209	>99.9	56	210	196–208	195–210	>99.9

**Table 4. Extended Norms: WMI and PSI Equivalents of Sums of Scaled Scores**

Working Memory Index					Processing Speed Index				
Sum of Scaled Scores	WMI	90% Confidence Interval	95% Confidence Interval	Percentile Rank	Sum of Scaled Scores	PSI	90% Confidence Interval	95% Confidence Interval	Percentile Rank
<b>38</b>	155	144–157	143–158	>99.9	<b>38</b>	155	141–156	139–157	>99.9
<b>39</b>	157	146–159	145–160	>99.9	<b>39</b>	158	144–159	142–160	>99.9
<b>40</b>	159	148–161	147–162	>99.9	<b>40</b>	161	146–161	145–163	>99.9
<b>41</b>	162	151–163	149–165	>99.9	<b>41</b>	164	149–164	147–165	>99.9
<b>42</b>	165	153–166	152–167	>99.9	<b>42</b>	167	151–166	150–168	>99.9
<b>43</b>	169	157–170	156–171	>99.9	<b>43</b>	170	154–169	153–171	>99.9
<b>44</b>	172	160–173	159–174	>99.9	<b>44</b>	174	158–173	156–174	>99.9
<b>45</b>	175	163–175	161–177	>99.9	<b>45</b>	177	160–175	159–177	>99.9
<b>46</b>	178	165–178	164–179	>99.9	<b>46</b>	180	163–178	161–179	>99.9
<b>47</b>	182	169–182	168–183	>99.9	<b>47</b>	183	166–181	164–182	>99.9
<b>48</b>	185	172–185	171–186	>99.9	<b>48</b>	186	168–183	167–185	>99.9
<b>49</b>	188	175–187	173–189	>99.9	<b>49</b>	189	171–186	169–187	>99.9
<b>50</b>	191	177–190	176–191	>99.9	<b>50</b>	192	173–188	172–190	>99.9
<b>51</b>	195	181–194	180–195	>99.9	<b>51</b>	195	176–191	175–193	>99.9
<b>52</b>	198	184–197	183–198	>99.9	<b>52</b>	198	179–194	177–195	>99.9
<b>53</b>	201	186–199	185–201	>99.9	<b>53</b>	201	181–196	180–198	>99.9

**Table 5. Extended Norms: FSIQ Equivalents of Sums of Scaled Scores**

Sum of Scaled Scores	90% Confidence Interval				Sum of Scaled Scores	90% Confidence Interval				Sum of Scaled Scores	90% Confidence Interval			
	FSIQ	90% Confidence Interval	95% Confidence Interval	Percentile Rank		FSIQ	90% Confidence Interval	95% Confidence Interval	Percentile Rank		FSIQ	90% Confidence Interval	95% Confidence Interval	Percentile Rank
<b>130</b>	160	153–162	152–163	>99.9	<b>160</b>	183	175–184	174–185	>99.9	<b>190</b>	207	198–207	197–208	>99.9
<b>131</b>	160	153–162	152–163	>99.9	<b>161</b>	184	176–185	175–186	>99.9	<b>191</b>	208	199–208	198–209	>99.9
<b>132</b>	161	154–163	153–164	>99.9	<b>162</b>	185	177–186	176–187	>99.9	<b>192</b>	209	200–209	199–210	>99.9
<b>133</b>	162	155–164	154–165	>99.9	<b>163</b>	186	178–187	177–188	>99.9	<b>193</b>	210	201–210	200–211	>99.9
<b>134</b>	162	155–164	154–165	>99.9	<b>164</b>	186	178–187	177–188	>99.9	<b>194</b>	210	201–210	200–211	>99.9
<b>135</b>	163	156–165	155–166	>99.9	<b>165</b>	187	179–188	178–189	>99.9	<b>195</b>	210	201–210	200–211	>99.9
<b>136</b>	164	157–166	156–167	>99.9	<b>166</b>	188	180–189	179–190	>99.9	<b>196</b>	210	201–210	200–211	>99.9
<b>137</b>	165	158–167	157–168	>99.9	<b>167</b>	189	181–190	180–191	>99.9					
<b>138</b>	166	159–168	158–169	>99.9	<b>168</b>	190	182–191	181–192	>99.9					
<b>139</b>	166	159–168	158–169	>99.9	<b>169</b>	190	182–191	181–192	>99.9					
<b>140</b>	167	160–169	159–170	>99.9	<b>170</b>	191	183–192	182–193	>99.9					
<b>141</b>	168	161–170	160–171	>99.9	<b>171</b>	192	184–193	183–194	>99.9					
<b>142</b>	169	162–171	161–172	>99.9	<b>172</b>	193	185–194	184–195	>99.9					
<b>143</b>	169	162–171	161–172	>99.9	<b>173</b>	194	186–195	185–196	>99.9					
<b>144</b>	170	162–172	162–173	>99.9	<b>174</b>	194	186–195	185–196	>99.9					
<b>145</b>	171	163–173	163–174	>99.9	<b>175</b>	195	186–196	186–197	>99.9					
<b>146</b>	172	164–174	163–175	>99.9	<b>176</b>	196	187–197	187–198	>99.9					
<b>147</b>	173	165–175	164–176	>99.9	<b>177</b>	197	188–198	187–199	>99.9					
<b>148</b>	173	165–175	164–176	>99.9	<b>178</b>	198	189–199	188–200	>99.9					
<b>149</b>	174	166–176	165–177	>99.9	<b>179</b>	198	189–199	188–200	>99.9					
<b>150</b>	175	167–177	166–178	>99.9	<b>180</b>	199	190–200	189–201	>99.9					
<b>151</b>	176	168–178	167–179	>99.9	<b>181</b>	200	191–201	190–202	>99.9					
<b>152</b>	177	169–179	168–180	>99.9	<b>182</b>	201	192–202	191–203	>99.9					
<b>153</b>	178	170–180	169–181	>99.9	<b>183</b>	202	193–203	192–204	>99.9					
<b>154</b>	178	170–180	169–181	>99.9	<b>184</b>	202	193–203	192–204	>99.9					
<b>155</b>	179	171–181	170–181	>99.9	<b>185</b>	203	194–204	193–205	>99.9					
<b>156</b>	180	172–182	171–182	>99.9	<b>186</b>	204	195–205	194–205	>99.9					
<b>157</b>	181	173–182	172–183	>99.9	<b>187</b>	205	196–206	195–206	>99.9					
<b>158</b>	182	174–183	173–184	>99.9	<b>188</b>	206	197–206	196–207	>99.9					
<b>159</b>	182	174–183	173–184	>99.9	<b>189</b>	206	197–206	196–207	>99.9					



**Table 6. Extended Norms: Verbal Expanded Crystallized Index (VECI) Equivalents of Sums of Scaled Scores**

Sum of Scaled Scores	VECI	90% Confidence Interval	95% Confidence Interval	Percentile Rank	Sum of Scaled Scores	VECI	90% Confidence Interval	95% Confidence Interval	Percentile Rank
75	153	145–156	144–157	>99.9	105	200	190–200	189–201	>99.9
76	156	148–158	147–159	>99.9	106	201	191–201	190–202	>99.9
77	158	150–160	149–161	>99.9	107	203	193–203	192–204	>99.9
78	159	151–161	150–162	>99.9	108	204	194–204	193–205	>99.9
79	161	153–163	152–164	>99.9	109	206	195–206	194–207	>99.9
80	162	154–164	153–165	>99.9	110	207	196–207	195–208	>99.9
81	164	156–166	155–167	>99.9	111	208	197–208	196–209	>99.9
82	165	157–167	156–168	>99.9	112	210	199–210	198–211	>99.9
83	167	158–169	157–170	>99.9					
84	168	159–170	158–171	>99.9					
85	170	161–172	160–173	>99.9					
86	171	162–173	161–174	>99.9					
87	173	164–175	163–176	>99.9					
88	174	165–176	164–177	>99.9					
89	176	167–177	166–178	>99.9					
90	177	168–178	167–179	>99.9					
91	179	170–180	169–181	>99.9					
92	180	171–181	170–182	>99.9					
93	182	173–183	172–184	>99.9					
94	183	174–184	173–185	>99.9					
95	185	176–186	175–187	>99.9					
96	186	176–187	175–188	>99.9					
97	188	178–189	177–190	>99.9					
98	189	179–190	178–191	>99.9					
99	191	181–192	180–193	>99.9					
100	192	182–193	181–194	>99.9					
101	194	184–195	183–196	>99.9					
102	195	185–195	184–196	>99.9					
103	197	187–197	186–198	>99.9					
104	198	188–198	187–199	>99.9					

**Table 7. Extended Norms: Expanded Fluid Index (EFI) Equivalents of Sums of Scaled Scores**

Sum of Scaled Scores	90% Confidence Interval				Percentile Rank	Sum of Scaled Scores	90% Confidence Interval			
	EFI	90% Confidence Interval	95% Confidence Interval	Percentile Rank			EFI	90% Confidence Interval	95% Confidence Interval	Percentile Rank
<b>74</b>	155	147–157	146–158	>99.9	<b>104</b>	201	191–201	190–202	>99.9	
<b>75</b>	156	148–158	147–159	>99.9	<b>105</b>	203	193–203	192–204	>99.9	
<b>76</b>	157	149–159	148–160	>99.9	<b>106</b>	205	195–205	194–206	>99.9	
<b>77</b>	158	150–160	149–161	>99.9	<b>107</b>	207	196–207	195–208	>99.9	
<b>78</b>	159	151–161	150–162	>99.9	<b>108</b>	209	198–209	197–210	>99.9	
<b>79</b>	161	153–163	152–164	>99.9	<b>109</b>	210	199–210	198–211	>99.9	
<b>80</b>	162	154–164	153–165	>99.9	<b>110</b>	210	199–210	198–211	>99.9	
<b>81</b>	163	155–165	154–166	>99.9	<b>111</b>	210	199–210	198–211	>99.9	
<b>82</b>	165	157–167	156–168	>99.9	<b>112</b>	210	199–210	198–211	>99.9	
<b>83</b>	166	157–168	156–169	>99.9						
<b>84</b>	167	158–169	157–170	>99.9						
<b>85</b>	169	160–171	159–172	>99.9						
<b>86</b>	170	161–172	160–173	>99.9						
<b>87</b>	171	162–173	161–174	>99.9						
<b>88</b>	173	164–175	163–176	>99.9						
<b>89</b>	175	166–176	165–177	>99.9						
<b>90</b>	177	168–178	167–179	>99.9						
<b>91</b>	179	170–180	169–181	>99.9						
<b>92</b>	180	171–181	170–182	>99.9						
<b>93</b>	181	172–182	171–183	>99.9						
<b>94</b>	183	174–184	173–185	>99.9						
<b>95</b>	185	176–186	175–187	>99.9						
<b>96</b>	187	177–188	176–189	>99.9						
<b>97</b>	189	179–190	178–191	>99.9						
<b>98</b>	190	180–191	179–192	>99.9						
<b>99</b>	191	181–192	180–193	>99.9						
<b>100</b>	193	183–194	182–195	>99.9						
<b>101</b>	195	185–195	184–196	>99.9						
<b>102</b>	197	187–197	186–198	>99.9						
<b>103</b>	199	189–199	188–200	>99.9						

**Table 8. Extended Norms: QRI and AWMJ Equivalents of Sums of Scaled Scores**

Quantitative Reasoning Index					Auditory Working Memory Index				
Sum of Scaled Scores	QRI	90% Confidence Interval	95% Confidence Interval	Percentile Rank	Sum of Scaled Scores	AWMI	90% Confidence Interval	95% Confidence Interval	Percentile Rank
38	155	147–157	146–158	>99.9	39	155	145–157	144–158	>99.9
39	158	150–160	149–161	>99.9	40	158	148–160	147–161	>99.9
40	161	153–163	152–164	>99.9	41	161	151–163	149–164	>99.9
41	164	156–166	155–167	>99.9	42	165	154–167	153–168	>99.9
42	168	159–170	158–171	>99.9	43	168	157–169	156–170	>99.9
43	171	162–173	161–174	>99.9	44	171	160–172	159–173	>99.9
44	174	165–176	164–177	>99.9	45	175	164–176	163–177	>99.9
45	177	168–178	167–179	>99.9	46	178	166–179	165–180	>99.9
46	180	171–181	170–182	>99.9	47	181	169–181	168–183	>99.9
47	183	174–184	173–185	>99.9	48	184	172–184	171–185	>99.9
48	186	176–187	175–188	>99.9	49	188	176–188	175–189	>99.9
49	189	179–190	178–191	>99.9	50	191	179–191	177–192	>99.9
50	192	182–193	181–194	>99.9	51	194	181–193	180–195	>99.9
51	195	185–195	184–196	>99.9	52	197	184–196	183–197	>99.9
52	198	188–198	187–199	>99.9	53	201	188–200	187–201	>99.9
53	201	191–201	190–202	>99.9	54	204	191–203	189–204	>99.9
54	204	194–204	193–205	>99.9	55	207	193–206	192–207	>99.9
55	207	196–207	195–208	>99.9	56	210	196–208	195–210	>99.9
56	210	199–210	198–211	>99.9					

**Table 9. Extended Norms: NVI Equivalents of Sums of Scaled Scores**

Sum of Scaled Scores	90% Confidence			Percentile Rank	Sum of Scaled Scores	90% Confidence			Percentile Rank	Sum of Scaled Scores	90% Confidence			Percentile Rank
	NVI	Interval	Interval			NVI	Interval	Interval			NVI	Interval	Interval	
<b>108</b>	160	152–162	151–163	>99.9	<b>136</b>	182	173–183	172–184	>99.9	<b>164</b>	206	195–206	194–207	>99.9
<b>109</b>	160	152–162	151–163	>99.9	<b>137</b>	183	174–184	173–185	>99.9	<b>165</b>	207	196–207	195–208	>99.9
<b>110</b>	161	153–163	152–164	>99.9	<b>138</b>	184	175–185	174–186	>99.9	<b>166</b>	208	197–208	196–209	>99.9
<b>111</b>	162	154–164	153–165	>99.9	<b>139</b>	185	176–186	175–187	>99.9	<b>167</b>	209	198–209	197–210	>99.9
<b>112</b>	162	154–164	153–165	>99.9	<b>140</b>	186	176–187	175–188	>99.9	<b>168</b>	210	199–210	198–211	>99.9
<b>113</b>	163	155–165	154–166	>99.9	<b>141</b>	186	176–187	175–188	>99.9					
<b>114</b>	164	156–166	155–167	>99.9	<b>142</b>	187	177–188	176–189	>99.9					
<b>115</b>	165	157–167	156–168	>99.9	<b>143</b>	188	178–189	177–190	>99.9					
<b>116</b>	166	157–168	156–169	>99.9	<b>144</b>	189	179–190	178–191	>99.9					
<b>117</b>	166	157–168	156–169	>99.9	<b>145</b>	190	180–191	179–192	>99.9					
<b>118</b>	167	158–169	157–170	>99.9	<b>146</b>	191	181–192	180–193	>99.9					
<b>119</b>	168	159–170	158–171	>99.9	<b>147</b>	191	181–192	180–193	>99.9					
<b>120</b>	169	160–171	159–172	>99.9	<b>148</b>	192	182–193	181–194	>99.9					
<b>121</b>	170	161–172	160–173	>99.9	<b>149</b>	193	183–194	182–195	>99.9					
<b>122</b>	171	162–173	161–174	>99.9	<b>150</b>	194	184–195	183–196	>99.9					
<b>123</b>	171	162–173	161–174	>99.9	<b>151</b>	195	185–195	184–196	>99.9					
<b>124</b>	172	163–174	162–175	>99.9	<b>152</b>	196	186–196	185–197	>99.9					
<b>125</b>	173	164–175	163–176	>99.9	<b>153</b>	197	187–197	186–198	>99.9					
<b>126</b>	174	165–176	164–177	>99.9	<b>154</b>	198	188–198	187–199	>99.9					
<b>127</b>	175	166–176	165–177	>99.9	<b>155</b>	199	189–199	188–200	>99.9					
<b>128</b>	176	167–177	166–178	>99.9	<b>156</b>	200	190–200	189–201	>99.9					
<b>129</b>	176	167–177	166–178	>99.9	<b>157</b>	201	191–201	190–202	>99.9					
<b>130</b>	177	168–178	167–179	>99.9	<b>158</b>	201	191–201	190–202	>99.9					
<b>131</b>	178	169–179	168–180	>99.9	<b>159</b>	202	192–202	191–203	>99.9					
<b>132</b>	179	170–180	169–181	>99.9	<b>160</b>	203	193–203	192–204	>99.9					
<b>133</b>	180	171–181	170–182	>99.9	<b>161</b>	204	194–204	193–205	>99.9					
<b>134</b>	181	172–182	171–183	>99.9	<b>162</b>	205	195–205	194–206	>99.9					
<b>135</b>	181	172–182	171–183	>99.9	<b>163</b>	206	195–206	194–207	>99.9					

**Table 10. Extended Norms: GAI Equivalents of Sums of Scaled Scores**

Sum of Scaled Scores	GAI	90% Confidence Interval	95% Confidence Interval	Percentile Rank	Sum of Scaled Scores	GAI	90% Confidence Interval	95% Confidence Interval	Percentile Rank
95	160	153–162	152–163	>99.9	133	205	196-206	195-206	>99.9
96	161	154–163	153–164	>99.9	134	206	197-206	196-207	>99.9
97	162	155–164	154–165	>99.9	135	207	198-207	197-208	>99.9
98	163	156–165	155–166	>99.9	136	208	199-208	198-209	>99.9
99	165	158–167	157–168	>99.9	137	209	200-209	199-210	>99.9
100	166	159–168	158–169	>99.9	138	210	201-210	200-211	>99.9
101	167	160–169	159–170	>99.9	139	210	201-210	200-211	>99.9
102	168	161–170	160–171	>99.9	140	210	201-210	200-211	>99.9
103	170	162–172	162–173	>99.9					
104	171	163–173	163–174	>99.9					
105	172	164–174	163–175	>99.9					
106	173	165–175	164–176	>99.9					
107	174	166–176	165–177	>99.9					
108	176	168–178	167–179	>99.9					
109	177	169–179	168–180	>99.9					
110	178	170–180	169–181	>99.9					
111	179	171–181	170–181	>99.9					
112	181	173–182	172–183	>99.9					
113	182	174–183	173–184	>99.9					
114	183	175–184	174–185	>99.9					
115	184	176–185	175–186	>99.9					
116	185	177–186	176–187	>99.9					
117	187	179–188	178–189	>99.9					
118	188	180–189	179–190	>99.9					
119	189	181–190	180–191	>99.9					
120	190	182–191	181–192	>99.9					
121	191	183–192	182–193	>99.9					
122	192	184–193	183–194	>99.9					
123	194	186–195	185–196	>99.9					
124	195	186–196	186–197	>99.9					
125	196	187–197	187–198	>99.9					
126	197	188–198	187–199	>99.9					
127	198	189–199	188–200	>99.9					
128	200	191–201	190–202	>99.9					
129	201	192–202	191–203	>99.9					
130	202	193–203	192–204	>99.9					
131	203	194–204	193–205	>99.9					
132	204	195–205	194–205	>99.9					

**Table 11. Extended Norms: EGAI Equivalents of Sums of Scaled Scores**

Sum of Scaled Scores	90% Confidence Interval				Sum of Scaled Scores	90% Confidence Interval				Sum of Scaled Scores	90% Confidence Interval			
	EGAI	90% Confidence Interval	95% Confidence Interval	Percentile Rank		EGAI	90% Confidence Interval	95% Confidence Interval	Percentile Rank		EGAI	90% Confidence Interval	95% Confidence Interval	Percentile Rank
152	160	154–162	153–163	>99.9	178	186	179–188	178–188	>99.9	204	210	203–211	202–212	>99.9
153	161	155–163	154–164	>99.9	179	187	180–189	179–189	>99.9	205	210	203–211	202–212	>99.9
154	162	156–164	155–165	>99.9	180	188	181–190	180–190	>99.9	206	210	203–211	202–212	>99.9
155	163	157–165	156–166	>99.9	181	189	182–190	181–191	>99.9	207	210	203–211	202–212	>99.9
156	164	158–166	157–167	>99.9	182	190	183–191	182–192	>99.9	208	210	203–211	202–212	>99.9
157	165	159–167	158–168	>99.9	183	191	184–192	183–193	>99.9	209	210	203–211	202–212	>99.9
158	166	160–168	159–169	>99.9	184	192	185–193	184–194	>99.9	210	210	203–211	202–212	>99.9
159	167	161–169	160–170	>99.9	185	193	186–194	185–195	>99.9	211	210	203–211	202–212	>99.9
160	168	162–170	161–171	>99.9	186	194	187–195	186–196	>99.9	212	210	203–211	202–212	>99.9
161	169	163–171	162–172	>99.9	187	195	188–196	187–197	>99.9	213	210	203–211	202–212	>99.9
162	170	164–172	163–173	>99.9	188	196	189–197	188–198	>99.9	214	210	203–211	202–212	>99.9
163	171	165–173	164–174	>99.9	189	197	190–198	189–199	>99.9	215	210	203–211	202–212	>99.9
164	172	166–174	165–175	>99.9	190	198	191–199	190–200	>99.9	216	210	203–211	202–212	>99.9
165	173	167–175	166–176	>99.9	191	199	192–200	191–201	>99.9	217	210	203–211	202–212	>99.9
166	174	168–176	167–177	>99.9	192	200	193–201	192–202	>99.9	218	210	203–211	202–212	>99.9
167	175	169–177	168–178	>99.9	193	201	194–202	193–203	>99.9	219	210	203–211	202–212	>99.9
168	176	170–178	169–179	>99.9	194	202	195–203	194–204	>99.9	220	210	203–211	202–212	>99.9
169	177	171–179	170–180	>99.9	195	203	196–204	195–205	>99.9	221	210	203–211	202–212	>99.9
170	178	172–180	171–181	>99.9	196	204	197–205	196–206	>99.9	222	210	203–211	202–212	>99.9
171	179	172–181	172–182	>99.9	197	205	198–206	197–207	>99.9	223	210	203–211	202–212	>99.9
172	180	173–182	173–183	>99.9	198	206	199–207	198–208	>99.9					
173	181	174–183	174–184	>99.9	199	207	200–208	199–209	>99.9					
174	182	175–184	175–184	>99.9	200	208	201–209	200–210	>99.9					
175	183	176–185	176–185	>99.9	201	209	202–210	201–211	>99.9					
176	184	177–186	177–186	>99.9	202	210	203–211	202–212	>99.9					
177	185	178–187	178–187	>99.9	203	210	203–211	202–212	>99.9					

**Table 12. Extended Norms: CPI Equivalents of Sums of Scaled Scores**

Sum of Scaled Scores	CPI	90% Confidence Interval	95% Confidence Interval	Percentile Rank	Sum of Scaled Scores	CPI	90% Confidence Interval	95% Confidence Interval	Percentile Rank
74	160	150–162	149–163	>99.9	104	204	191–203	189–204	>99.9
75	161	151–163	149–164	>99.9	105	206	193–205	191–206	>99.9
76	162	152–164	150–165	>99.9	106	207	193–206	192–207	>99.9
77	164	153–166	152–167	>99.9	107	208	194–207	193–208	>99.9
78	165	154–167	153–168	>99.9	108	210	196–208	195–210	>99.9
79	166	155–167	154–169	>99.9	109	210	196–208	195–210	>99.9
80	168	157–169	156–170	>99.9	110	210	196–208	195–210	>99.9
81	170	159–171	158–172	>99.9	111	210	196–208	195–210	>99.9
82	171	160–172	159–173	>99.9	112	210	196–208	195–210	>99.9
83	172	161–173	160–174	>99.9					
84	174	163–175	162–176	>99.9					
85	176	165–177	163–178	>99.9					
86	177	166–178	164–179	>99.9					
87	178	166–179	165–180	>99.9					
88	180	168–180	167–182	>99.9					
89	182	170–182	169–183	>99.9					
90	183	171–183	170–184	>99.9					
91	184	172–184	171–185	>99.9					
92	186	174–186	173–187	>99.9					
93	188	176–188	175–189	>99.9					
94	189	177–189	176–190	>99.9					
95	190	178–190	176–191	>99.9					
96	192	179–192	178–193	>99.9					
97	194	181–193	180–195	>99.9					
98	195	182–194	181–196	>99.9					
99	196	183–195	182–197	>99.9					
100	198	185–197	184–198	>99.9					
101	200	187–199	186–200	>99.9					
102	201	188–200	187–201	>99.9					
103	202	189–201	188–202	>99.9					

## Reporting and Describing Scores Derived Using the Extended Norms

The extended subtest norms are based on comparisons with the child’s same-age peers, and the extended composite norms are age-corrected standard scores. The extended composite norms can be interpreted similarly to other composite scores, as outlined in chapter 6 of the *WISC–V Technical and Interpretive Manual*. Age-based percentile ranks are provided for the extended composite norms and indicate a child’s standing relative to other children the same age. Percentile ranks reflect points on a scale at or below which a given percentage of scores lie, based on the normative sample. The percentile ranks for the extended composite scores are interpreted as are other percentile ranks, as described in chapter 6 of the *WISC–V Technical and Interpretive Manual*.

Scores on measures of cognitive ability are based on observational data and represent estimates of a child’s true scores. They reflect a child’s true abilities combined with some degree of measurement error. Confidence intervals provide another means of expressing score precision and serve as a reminder that measurement error is inherent in all scores. Refer to chapter 6 of the *WISC–V Technical and Interpretive Manual* for additional information about confidence intervals and their use in interpretation.

The following wording is recommended when the extended norms are used:

Because [insert child’s name] obtained the top scaled score on [insert # of subtests] subtests, the scaled and composite scores were derived using a special table of extended norms created using the normative sample and a sample of highly gifted children (see *WISC-V Technical Report #6*). Using these extended norms, the scores are as follows: [describe].

## Case Study

**Name:** Child A

**Test Age:** 9 years 0 months

Because Child A obtained the top scaled score on seven subtests, the scaled and composite scores were derived using a special table of extended norms created using the normative sample and a sample of highly gifted children (see *WISC-V Technical Report #6*). Using these extended norms, the scores are as follows.

Subtest	Raw score	Scaled score		Composite	Sum of scaled scores		Standard score	
		Regular	Extended		Regular	Extended	Regular	Extended
Similarities	46	19	26	Verbal Comprehension Index	38	46	155	180
Vocabulary	42	19	20	Visual Spatial Index	29	29	126	126
Information	27	19	21	Fluid Reasoning Index	34	34	140	140
Comprehension	33	19	23	Working Memory Index	37	37	150	150
Block Design	36	14	14	Processing Speed Index	27	27	119	119
Visual Puzzles	20	15	15	Full Scale IQ	116	124	146	154
Matrix Reasoning	27	19	19	Verbal (Expanded Crystallized) Index	76	90	155	177
Figure Weights	26	15	15	Expanded Fluid Index	69	70	148	150
Picture Concepts	19	16	16	Quantitative Reasoning Index	34	35	143	146
Arithmetic	29	19	20	Auditory Working Memory Index	37	37	151	151
Digit Span	37	19	19	Nonverbal Index	92	92	139	139
Picture Span	42	18	18	General Ability Index	86	94	147	158
Letter-Number Sequencing	23	18	18	Expanded General Ability Index	143	158	150	166
Coding	36	11	11	Cognitive Proficiency Index	64	64	141	141
Symbol Search	32	16	16					
Cancellation	48	9	9					



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