



# 11.

## RELIABILITY & STANDARD ERROR OF MEASUREMENT

### Overview

Reliability refers to the consistency in test scores. Reliability coefficients quantify the level of consistency of test scores. Tests with high reliability coefficients provide stable test scores between test forms across occasions. Reliability is a necessary condition for the quality of a test. It is important to establish reliability of test scores through empirical studies so that sound judgments can be made. The reliability of test scores is a function of test content, test length, item difficulty, standard deviation, and student motivation, as well as the procedure for test development, test administration, and scoring.

Reliability coefficients typically range from zero to one, with the values near one indicating high consistency, and values near zero indicating low or no consistency. In classical test theory, reliability is defined as the ratio of the true score variance to the observed score variance, assuming the error variance is the same along the score scale. Reliability coefficients are usually estimated on a single test administration by calculating the inter-item covariances.

Cronbach alpha (1951) is one of the most widely used estimates to test reliability, which can be computed using the formula below:

$$(11.1) \quad \alpha_x = \frac{k}{k-1} \left( 1 - \frac{\sum \text{var}(Y_i)}{\text{var}(Y_{tot})} \right)$$

where

k = number of items on the test

var. ( $Y_i$ ) = variance of item  $i$

var. ( $Y$ ) = total test score variance

Standard error of measurement (SEM) provides another indicator of the accuracy of test scores, which summarizes the amount of errors or inconsistency in test scores of a test. SEM can be computed using the formula below:

$$(11.2) \quad SEM = SD(Y_{tot})\sqrt{1 - \text{reliability}}$$

where

SD ( $Y$ ) = Standard deviation of the test

# Reliability and Standard Error of Measurement by Test Form and Testing Mode

The estimated reliability and standard error of measurement (SEM) for the three multiple-choice tests, Verbal Reasoning, Grammar/Writing, and Quantitative Reasoning, and the composite CLT scores are reported in this section with descriptive statistics of minimum and maximum scores, mean, and standard deviation (SD) derived from raw scores.

Table 11.1 provides the reliability coefficients and SEMs for the two test forms operated in April of the 2017-2018 school year, Form 1517 and Form 1618. The reliability is 0.92 with the SEM of 4.76 for CLT for Form 1517; the reliability is 0.95 with the SEM of 4.67 for Form 1618. The reliability coefficients for the three subtests are 0.80-0.86 with the SEMs of 2.56-2.84 for Form 1517; while the reliability coefficients are 0.85-0.89 with the SEMs of 2.63-2.76 for Form 1618. Both forms provide highly reliable CLT scores and moderately highly reliable subtest scores.

Each test form was delivered in two testing modes, the online and the paper-and-pencil test (PPT) versions. Table 11.2 provides descriptive statistics of test scores by test form and testing mode. The reliability coefficients are reasonably high for the CLT scores in the range of 0.92-0.95 with the SEM of 4.64-4.79 across test forms and testing modes. The magnitude of reliability coefficients is in 0.80s for the three subtests, 0.80-0.89 for Verbal Reasoning with the SEM of 2.60-2.84; 0.80-0.89 for Grammar/Writing with the SEM of 2.53-2.68; 0.85-0.87 for Quantitative Reasoning with the SEM of 2.74-2.80.

The results of analyses provide evidence to support highly reliable CLT scores and moderately highly reliable scores for the three subtests. The results also indicate the comparability of test scores in terms of accuracy between the online and the PPT modes within each form.

**Table 11.1. Reliability and Standard Error of Measurement of Unadjusted Test Scores by Test Form**

Test	Score	N	Min.	Max.	Mean	SD	Reliability	SEM
1517	CLT	780	26	113	68.52	16.73	0.92	4.76
	Verbal Reasoning		6	39	22.58	6.33	0.80	2.84
	Grammar/Writing		6	39	24.99	5.76	0.80	2.56
	Quantitative Reasoning		4	40	20.95	7.30	0.86	2.77
1618	CLT	276	6	106	65.88	19.92	0.95	4.67
	Verbal Reasoning		3	40	25.10	7.92	0.89	2.64
	Grammar/Writing		0	38	23.05	7.25	0.87	2.63
	Quantitative Reasoning		0	37	17.74	7.07	0.85	2.76

Table 11.2. Descriptive Statistics of Unadjusted Test Scores by Test Form and Testing Mode

Test	Mode	Score	N	Min.	Max.	Mean	SD	Reliability	SEM
1517	Total	CLT	780	26	113	68.52	16.73	0.92	4.76
		Verbal Reasoning		6	39	22.58	6.33	0.80	2.84
		Grammar/Writing		6	39	24.99	5.76	0.80	2.56
		Quantitative Reasoning		4	40	20.95	7.30	0.86	2.77
	Online	CLT	461	26	113	66.92	16.72	0.92	4.79
		Verbal Reasoning		6	39	21.92	6.30	0.80	2.85
		Grammar/Writing		6	39	24.43	5.85	0.81	2.58
		Quantitative Reasoning		4	38	20.57	7.14	0.85	2.79
	Paper	CLT	319	27	111	70.83	16.49	0.92	4.72
		Verbal Reasoning		9	38	23.55	6.27	0.80	2.82
		Grammar/Writing		9	38	25.80	5.55	0.79	2.52
		Quantitative Reasoning		6	40	21.49	7.51	0.87	2.74
Total	CLT	276	6	106	65.88	19.92	0.95	4.67	
	Verbal Reasoning		3	40	25.10	7.92	0.89	2.64	
	Grammar/Writing		0	38	23.05	7.25	0.87	2.63	
	Quantitative Reasoning		0	37	17.74	7.07	0.85	2.76	
1618	Online	CLT	190	19	106	69.31	18.64	0.94	4.64
		Verbal Reasoning		3	38	26.35	7.45	0.88	2.60
		Grammar/Writing		5	38	24.43	6.68	0.85	2.61
		Quantitative Reasoning		3	37	18.53	6.78	0.83	2.77
Paper	CLT	86	6	105	58.30	20.66	0.95	4.76	
	Verbal Reasoning		6	40	22.34	8.27	0.89	2.71	
	Grammar/Writing		0	38	19.99	7.55	0.87	2.63	
	Quantitative Reasoning		0	36	15.98	7.42	0.86	2.74	

# Reliability and Standard Error of Measurement by Subgroup

The estimated reliability and SEM are computed by subgroup for the three multiple-choice based tests, Verbal Reasoning, Grammar/Writing, and Quantitative Reasoning, and the composite CLT scores. It is important to note that the reliability coefficient may not be stable from case to case due to small sample size (e.g.,  $N < 300$ ). When the variance for some items becomes zero, those items are removed from the analysis.

Table 11.3 provides the analysis results by gender and test form. Gender identifications are based on the available self-reported information from examinees. Missing identifications are excluded from analysis. The reliability coefficients of the CLT scores are 0.92 with the SEMs of 4.72-4.75 by gender in Form 1517, and 0.93-0.96 with the SEMs of 4.64-4.70 by gender in Form 1618. The reliability coefficients of the three subtests are in the range of 0.79-0.85 for females with the SEMs of 2.50-2.82 in Form 1517, while the reliability coefficients are in the range of 0.80-0.86 for males with the SEMs of 2.50-2.84 in Form 1618. The results of analyses show highly reliable CLT scores and moderately highly reliable subtest scores for both male and female students by test form.

Table 11.3. Descriptive Statistics of Test Scores by Test Form and Gender

Test	Gender	Test	N	Min.	Max.	Mean	SD	Reliability	SEM
1517	Female	CLT	311	27	109	69.68	16.29	0.92	4.72
		Verbal Reasoning		7	38	23.08	6.20	0.79	2.82
		Grammar/Writing		9	38	26.03	5.44	0.79	2.50
		Quantitative Reasoning		6	37	20.57	7.16	0.85	2.78
	Male	CLT	270	26	113	69.73	17.24	0.92	4.75
		Verbal Reasoning		8	39	22.87	6.35	0.80	2.84
		Grammar/Writing		6	39	24.83	6.08	0.82	2.56
		Quantitative Reasoning		7	38	22.03	7.40	0.86	2.73
1618	Female	CLT	82	30	104	67.06	17.17	0.93	4.64
		Verbal Reasoning		9	38	26.18	6.87	0.86	2.59
		Grammar/Writing		8	38	24.27	6.39	0.84	2.59
		Quantitative Reasoning		5	31	16.61	5.82	0.77	2.78
	Male	CLT	133	6	106	64.06	22.64	0.96	4.70
		Verbal Reasoning		3	40	24.04	8.65	0.91	2.65
		Grammar/Writing		0	38	22.01	7.83	0.89	2.64
		Quantitative Reasoning		0	37	18.02	8.16	0.89	2.73

Table 11.4 provides reliability coefficients and SEMs by racial/ethnicity group and test form. Racial/ethnicity identifications are based on the available self-reported information from examinees. Missing identifications are excluded from analysis. Due to the small number of students in some racial groups, such as Hispanic, African American, and American Indian, the analyses are based on two general categories, White and Non-White. In Form 1517, the reliability is 0.91 of CLT scores with the SEM of 4.73 for White students and the reliability of 0.93 with the SEM of 4.79 for Non-White students. In Form 1618, the reliability is 0.93 of CLT scores with the SEM of 4.49 for White students and the reliability is 0.93 with the SEM of 4.81 for Non-White students. For the three subtests, the reliability coefficients for Form 1517 are 0.78-0.85 with the SEMs of 2.51-2.82 for White students and 0.82-0.88 with SEMs in 2.59-2.87 for Non-White students. The reliability coefficients for Form 1618 are 0.82-0.86 with the SEMs of 2.50-2.77 for White students and 0.81-0.89 with SEMs in 2.72-2.79 for Non-White students.

The results of analyses provide evidence to support highly reliable CLT scores and moderately highly reliable subtest scores for both White and Non-White students. The results also indicate the comparability of test scores for internal consistency and accuracy of test scores between the two racial/ethnicity groups across testing modes within each form.

**Table 11.4. Descriptive Statistics of Test Scores by Race/Ethnicity and Test Form**

Test	Race	Test	N	Min.	Max.	Mean	SD	Reliability	SEM
1517	Non-White	CLT	109	27	109	65.85	18.38	0.93	4.79
		Verbal Reasoning	109	8	39	20.99	6.73	0.82	2.87
		Grammar/Writing	109	9	38	23.90	6.29	0.83	2.59
		Quantitative Reasoning	109	6	38	20.96	7.81	0.88	2.75
	White	CLT	444	26	113	70.69	16.04	0.91	4.73
		Verbal Reasoning	444	7	38	23.48	6.06	0.78	2.82
		Grammar/Writing	444	6	39	25.88	5.53	0.79	2.51
		Quantitative Reasoning	444	6	38	21.34	7.17	0.85	2.77
1618	Non-White	CLT	100	6	104	54.54	18.72	0.93	4.81
		Verbal Reasoning	100	3	37	20.83	8.07	0.89	2.74
		Grammar/Writing	100	0	38	18.97	6.65	0.83	2.72
		Quantitative Reasoning	100	0	35	14.74	6.41	0.81	2.79
	White	CLT	107	37	106	75.45	17.35	0.93	4.49
		Verbal Reasoning	107	12	40	28.77	5.99	0.82	2.52
		Grammar/Writing	107	11	38	26.64	6.04	0.83	2.50
		Quantitative Reasoning	107	4	37	20.04	7.36	0.86	2.71

# Reliability and Standard Error of Measurement by Subgroup and Testing Mode

The reliability and SEM are computed by subgroup for the three multiple-choice based tests, Verbal Reasoning, Grammar/Writing, and Quantitative Reasoning, and the composite CLT scores. As indicated previously, small sample size may result in unstable reliability of test scores across occasions when the total group is broken down for analysis by subgroup.

The analysis results are summarized in Table 11.5 by test form, gender, and testing mode. In Form 1517, the reliability coefficients of the CLT scores are 0.91-0.92 by testing mode with the corresponding SEM of 4.68-4.74 for females and 0.92-0.93 for males by testing mode with the corresponding SEM of 4.75-4.78. In Form 1618, the reliability is 0.92 with the SEM of 4.59 for females online testing and 0.95-0.96 with the SEMs of 4.59-4.76 for males across testing modes. For the three subtests, the reliability is in the range of 0.78-0.86 with the SEMs of 2.45-2.82 across genders and testing modes for Form 1517; while the reliability is in the range of 0.79-0.87 with the SEMs of 2.53-2.84 for Form 1618.

The results of analyses support the similar level of reliability and accuracy of test scores for both male and female students between different testing modes within each test form.

Table 11.6 provides the reliability and SEMs by test form, racial/ethnicity, and testing mode. In the Form 1517 online version, the reliability coefficient of the CLT scores is 0.92 for White students with the SEM of 4.73 and 0.93 for Non-White students with the SEM of 4.77. The reliability coefficients for the three subtests are 0.78-0.85 with the SEM of 2.51-2.83, respectively, for Verbal Reasoning, Grammar/Writing, and Quantitative Reasoning for White students; while the reliability coefficients are 0.83-0.88 with the SEMs of 2.61-2.84 for Non-White students. In the paper-and-pencil version, the reliability of CLT scores is 0.91 (SEM=4.69) for White students and 0.93 (SEM=4.83) for Non-White students. Similarly, the reliability coefficients of the three subtests are 0.79-0.86 (SEMs=2.50-2.81) for White students and 0.80-0.87 (SEMs=2.57-2.91) for Non-White students.

Similar results are found in Form 1618. For the online version, the reliability of CLT scores is 0.92 (SEM=4.49) for White students and 0.93 (SEM=4.82) for Non-White students. The reliability coefficients for the three subtests are in the range of 0.78-0.86 (SEMs=2.50-2.72) for White Students and 0.79-0.90 (SEMs=2.71-2.80) for Non-White students. The reliability coefficient for the paper-and-pencil version is 0.95 (SEM=4.64) for White students and 0.94 (SEM=4.72) for Non-White students. The reliability coefficients for the three subtests are in the range of 0.89-0.90 (SEMs=2.45-2.66) for White Students and 0.84-0.87 (SEMs=2.72-2.79) for Non-White students.

The results of analyses provide evidence to support the similar level of internal consistency and accuracy of test scores between White and Non-White students across testing mode by test form. Caution should be taken in the interpretation of the results in the comparison of reliability and SEM based on small sample size. For example, the reliability of CLT scores is 0.95 for White students (N=23) on the paper-and-pencil version. Four items are excluded from estimates due to the zero variance.

Table 11.5. Descriptive Statistics of Test Scores by Test Form, Gender, and Testing Mode

Test	Gender Mode	Test	N	Min.	Max.	Mean	SD	Reliability	SEM
1517	Female/Online	CLT	188	35	109	68.17	16.05	0.91	4.73
		Verbal Reasoning	188	7	38	22.37	6.10	0.79	2.82
		Grammar/Writing	188	10	37	25.63	5.37	0.78	2.52
		Quantitative Reasoning	188	6	37	20.16	7.03	0.84	2.79
	Female/Paper	CLT	123	27	106	71.99	16.44	0.92	4.68
		Verbal Reasoning	123	9	37	24.17	6.21	0.80	2.81
		Grammar/Writing	123	9	38	26.64	5.52	0.80	2.45
		Quantitative Reasoning	123	6	37	21.18	7.33	0.86	2.75
	Male/Online	CLT	176	26	113	69.43	17.45	0.93	4.75
		Verbal Reasoning	176	8	39	22.98	6.26	0.79	2.84
		Grammar/Writing	176	6	39	24.57	6.08	0.83	2.53
		Quantitative Reasoning	176	7	38	21.88	7.48	0.87	2.75
Male/Paper	CLT	94	35	104	70.30	16.91	0.92	4.78	
	Verbal Reasoning	94	10	38	22.66	6.56	0.81	2.83	
	Grammar/Writing	94	9	37	25.32	6.08	0.82	2.58	
	Quantitative Reasoning	94	7	36	22.32	7.28	0.86	2.74	
1618	Female/Online	CLT	79	30	104	66.46	16.85	0.924	4.65
		Verbal Reasoning	79	9	38	26.01	6.84	0.855	2.61
		Grammar/Writing	79	8	38	23.99	6.27	0.828	2.60
		Quantitative Reasoning	79	5	31	16.46	5.72	0.762	2.79
	Female/Paper	CLT	3	58	96	83.00	21.66	n/a	n/a
		Verbal Reasoning	3	22	35	30.67	7.51	n/a	n/a
		Grammar/Writing	3	25	35	31.67	5.77	n/a	n/a
		Quantitative Reasoning	3	11	26	20.67	8.39	n/a	n/a
	Male/Online	CLT	65	19	106	70.14	22.97	0.96	4.59
		Verbal Reasoning	65	3	38	25.83	8.90	0.916	2.58
		Grammar/Writing	65	6	37	24.43	7.35	0.875	2.60
		Quantitative Reasoning	65	3	37	19.88	8.39	0.895	2.72
Male/Paper	CLT	68	6	105	58.25	20.89	0.95	4.76	
	Verbal Reasoning	68	6	40	22.32	8.11	0.89	2.71	
	Grammar/Writing	68	0	38	19.69	7.61	0.88	2.68	
	Quantitative Reasoning	68	0	36	16.24	7.57	0.87	2.75	

Table 11.6. Descriptive Statistics of Test Scores by Test Form, Race/Ethnicity, and Testing Mode

Test	Race/Mode	Test	N	Min.	Max.	Mean	SD	Reliability	SEM
1517	Non-White/ Online	CLT	63	27	109	66.63	18.58	0.93	4.77
		Verbal Reasoning	63	8	39	21.13	6.95	0.83	2.84
		Grammar/Writing	63	9	38	24.11	6.42	0.83	2.61
	Non-White/Paper	Quantitative Reasoning	63	6	38	21.40	7.93	0.88	2.71
		CLT	46	33	106	64.78	18.24	0.93	4.83
		Verbal Reasoning	46	10	34	20.80	6.48	0.80	2.91
	White/Online	Grammar/Writing	46	14	37	23.61	6.18	0.83	2.57
		Quantitative Reasoning	46	6	37	20.37	7.69	0.87	2.79
		CLT	283	26	113	69.51	16.22	0.92	4.73
	White/Paper	Verbal Reasoning	283	7	37	23.09	5.99	0.78	2.83
		Grammar/Writing	283	6	39	25.43	5.53	0.79	2.51
		Quantitative Reasoning	283	7	38	20.99	7.15	0.85	2.79
White/Paper	CLT	161	27	106	72.78	15.56	0.91	4.69	
	Verbal Reasoning	161	9	38	24.16	6.15	0.79	2.81	
	Grammar/Writing	161	9	38	26.66	5.44	0.79	2.50	
1618	Non-White/ Online	Quantitative Reasoning	161	6	37	21.96	7.18	0.86	2.73
		CLT	59	19	100	56.00	18.36	0.93	4.82
		Verbal Reasoning	59	3	37	21.20	8.35	0.90	2.71
	Non-White/Paper	Grammar/Writing	59	6	35	19.95	6.07	0.80	2.74
		Quantitative Reasoning	59	3	35	14.85	6.09	0.79	2.80
		CLT	41	6	104	52.44	19.25	0.94	4.72
	White/Online	Verbal Reasoning	41	6	35	20.29	7.73	0.87	2.79
		Grammar/Writing	41	0	38	17.56	7.26	0.86	2.72
		Quantitative Reasoning	41	0	31	14.59	6.92	0.84	2.77
	White/Paper	CLT	84	41	106	76.40	16.30	0.92	4.49
		Verbal Reasoning	84	16	38	29.15	5.40	0.78	2.52
		Grammar/Writing	84	13	38	27.08	5.58	0.80	2.50
White/Paper	Quantitative Reasoning	84	7	37	20.17	7.22	0.86	2.72	
	CLT	23	37	105	71.96	20.76	0.95	4.64	
	Verbal Reasoning	23	12	40	27.35	7.74	0.90	2.45	
White/Paper	Grammar/Writing	23	11	36	25.04	7.42	0.89	2.46	
	Quantitative Reasoning	23	4	36	19.57	8.01	0.89	2.66	



# Reliability and Standard Error of Measurement by School Type and Family Income

The reliability and SEM, as well as descriptive statistics, are computed based on the raw scores by school type and family income of each test form for the three multiple-choice based tests, Verbal Reasoning, Grammar/Writing, and Quantitative Reasoning, and the composite CLT scores.

The results in Table 11.7 show that the reliability coefficients of CLT scores are 0.92 (SEM=4.69-4.74) for home and private schools in Form 1517 and 0.93-0.96 (SEM=4.28-4.64) for charter, home, and private schools in Form 1618. The reliability coefficients of the three subtests are in the similar range of 0.79-0.86 (SEM=2.52-2.84) in Form 1517 and 0.79-0.88 (SEM=2.10-2.79) in Form 1618 across school types.

The results of analysis by self-reported family income are summarized in Table 11.8 for each test form. The reliability of CLT scores are 0.91-0.92 (SEM=4.58-4.87) across family income categories in Form 1517 and 0.92-0.95 (SEM=4.37-4.77) in Form 1618. The reliability coefficients for the three subtests are in the range of 0.74-0.87 (SEM=2.49-2.83) in Form 1517 and in the similar range of 0.75-0.88 (SEM=2.39-2.81) across the family income categories, respectively.

Table 11.7. Reliability and Standard Error of Measurement by School Type and Test Form

Form	Type	Test	N	Range	Min.	Max.	Mean	SD	Reliability	SEM
1517	Home School	CLT	86	70	34	104	69.78	16.57	0.92	4.69
		Verbal Reasoning	86	27	9	36	23.95	6.03	0.79	2.76
		Grammar/Writing	86	25	12	37	26.23	5.50	0.79	2.52
		Quantitative Reasoning	86	30	7	37	19.59	7.09	0.84	2.84
	Private School	CLT	641	87	26	113	68.72	16.74	0.92	4.74
		Verbal Reasoning	641	33	6	39	22.45	6.35	0.80	2.84
		Grammar/Writing	641	33	6	39	24.91	5.84	0.81	2.54
		Quantitative Reasoning	641	34	6	40	21.36	7.26	0.86	2.72
	Charter School	CLT	74	87	19	106	62.27	17.54	0.93	4.64
		Verbal Reasoning	74	35	3	38	23.30	7.75	0.88	2.68
		Grammar/Writing	74	27	9	36	22.15	5.86	0.79	2.69
		Quantitative Reasoning	74	34	3	37	16.82	6.40	0.81	2.79
1618	Home School	CLT	30	58	47	105	81.77	17.47	0.94	4.28
		Verbal Reasoning	30	24	16	40	31.80	6.07	0.88	2.10
		Grammar/Writing	30	22	16	38	29.70	5.68	0.83	2.34
	Private School	Quantitative Reasoning	30	28	8	36	20.27	7.77	0.88	2.69
		CLT	164	100	6	106	64.29	20.18	0.95	4.51
		Verbal Reasoning	164	32	6	38	24.45	7.71	0.88	2.67
Private School	Grammar/Writing	164	38	0	38	22.12	7.54	0.88	2.61	
	Quantitative Reasoning	164	35	0	35	17.72	7.13	0.85	2.76	

Table 11.8. Reliability and Standard Error of Measurement by Family Income and Test Form

Form	Test	Family Income of \$50,000 or Lower							
		N	Range	Min.	Max.	Mean	SD	Reliability	SEM
1517	CLT	58	76	27	103	65.02	17.21	0.92	4.87
	Verbal Reasoning	58	31	7	38	21.57	7.41	0.86	2.77
	Grammar/Writing	58	26	9	35	24.14	5.65	0.79	2.59
	Quantitative Reasoning	58	29	6	35	19.31	6.99	0.84	2.79
1618	CLT	39	85	19	104	59.36	16.85	0.92	4.77
	Verbal Reasoning	39	30	8	38	23.03	7.20	0.86	2.69
	Grammar/Writing	39	32	6	38	21.41	6.29	0.82	2.67
	Quantitative Reasoning	39	23	5	28	14.92	5.61	0.75	2.81
Family Income of \$50,001 - \$125,000									
1517	CLT	181	76	33	109	71.22	15.74	0.91	4.72
	Verbal Reasoning	181	30	9	39	23.87	5.55	0.74	2.83
	Grammar/Writing	181	27	11	38	25.72	5.70	0.81	2.48
	Quantitative Reasoning	181	31	6	37	21.62	7.12	0.85	2.76
1618	CLT	53	74	31	105	74.57	19.53	0.95	4.37
	Verbal Reasoning	53	33	7	40	28.17	7.32	0.88	2.54
	Grammar/Writing	53	23	12	35	25.66	6.57	0.85	2.55
	Quantitative Reasoning	53	28	8	36	20.74	7.72	0.88	2.67
Family Income of \$125,001 - \$225,000 or Higher									
1517	CLT	109	66	40	106	74.01	15.27	0.91	4.58
	Verbal Reasoning	109	27	10	37	23.90	6.11	0.79	2.80
	Grammar/Writing	109	21	14	35	26.56	4.89	0.74	2.49
	Quantitative Reasoning	109	31	7	38	23.55	7.55	0.87	2.72
1618	CLT	22	66	40	106	75.36	17.42	0.93	4.61
	Verbal Reasoning	22	20	18	38	29.27	6.40	0.84	2.56
	Grammar/Writing	22	27	9	36	26.73	6.17	0.85	2.39
	Quantitative Reasoning	22	24	11	35	19.36	6.59	0.83	2.72