

Achievement Test Analysis



John Q Student, age 16, grade 11.6

The 1970 California Achievement Test, Level 5, Form A, administered March 15, 2016

Category	Subcategory	Reading Learning Objective	Correct	
Comprehension	Generalizations	Make general statements about a passage	15 of 15 ●	
	Inference	Make inferences from information presented	7 of 10 ●	
	Interpretation	Ask and answer questions about a passage (general)	7 of 7 ●	
	Interpretation	Ask and answer questions about a passage (math/logic)	7 of 7 ●	
	Interpretation	Ask and answer questions about a passage (science)	10 of 15 ●	
	Interpretation	Ask and answer questions about a passage (social studies/geography)	9 of 9 ●	
	Interpretation	Identify elements of a story (author's purpose)	3 of 3 ●	
	Interpretation	Provide answers to questions (reworded facts)	13 of 16 ●	
	Interpretation	Provide answers to questions (stated facts)	4 of 4 ●	
	Relationships	Identify relationships between story elements (comparison/contrast)	3 of 3 ●	
	Relationships	Identify relationships between story elements (identify cause/effect)	2 of 3 ●	
	Reference Skills	Index & Glossary	Identify location and use of a bibliography	1 of 1 ●
		Index & Glossary	Identify location and use of an appendix	1 of 1 ●
Index & Glossary		Identify use of the glossary	1 of 1 ●	
Reference Types		Use a dictionary to find word meanings (standard)	0 of 1 ○	
Reference Types		Use a specialized dictionary (unabridged)	1 of 1 ●	
Vocabulary	Research Skills	Identify research- and reference-related terms	2 of 2 ●	
	Words in Context	Identify similar word meaning by context	33 of 40 ●	

Category	Subcategory	Mathematics Learning Objective	Correct
Computation & Operations	Problem Solving Skills	Use logical reasoning	7 of 7 ●
	Addition Computation	Add 3 or more numbers	7 of 8 ●
	Addition Computation	Add multiple-digit numbers (2 - 3 digits)	2 of 2 ●
	Addition Computation	Add multiple-digit numbers (4 or more digits)	6 of 7 ●
	Addition Computation	Add numbers with decimals	5 of 5 ●
	Addition Computation	Add numbers with fractions	3 of 4 ●
	Addition Computation	Add numbers with regrouping (carrying)	7 of 7 ●
	Division Computation	Divide by multiple-digit number (divisor) (2 digits)	2 of 3 ●
	Division Computation	Divide by multiple-digit number (divisor) (3 or more digits)	1 of 1 ●
	Division Computation	Divide multiple-digit number (dividend) (2 to 3 digits)	3 of 4 ●
	Division Computation	Divide multiple-digit number (dividend) (4 or more digits)	3 of 4 ●
	Division Computation	Divide number with remainder (as fraction)	1 of 2 ●
	Division Computation	Divide numbers with decimals	2 of 2 ●
	Division Computation	Divide numbers with fractions	2 of 5 ●
	Division Computation	Solve division by a number (multiples of 10 or 100)	1 of 1 ●
	Division Computation	Use division algorithm (std long division problem setup)	3 of 4 ●
	Fractions , Decimals, Percents	Calculate fractions (add & subtract)	6 of 8 ●
	Fractions , Decimals, Percents	Calculate fractions (multiply & divide)	4 of 10 ●
	Fractions , Decimals, Percents	Calculate money amounts with decimals (add)	4 of 4 ●
	Fractions , Decimals, Percents	Calculate money amounts with decimals (mult & divide)	3 of 4 ●
	Fractions , Decimals, Percents	Calculate money amounts with decimals (subtract)	0 of 1 ○
	Fractions , Decimals, Percents	Compare and order decimals	1 of 1 ●
	Fractions , Decimals, Percents	Compare and order fractions	1 of 1 ●
	Fractions , Decimals, Percents	Convert between fraction, decimal & percent equivalents	9 of 10 ●
	Fractions , Decimals, Percents	Convert between improper fractions and mixed numbers	3 of 8 ●
	Fractions , Decimals, Percents	Convert between improper fractions and whole numbers	1 of 4 ●
	Fractions , Decimals, Percents	Find lowest common denominator	3 of 4 ●
	Fractions , Decimals, Percents	Find percent of a group or set	1 of 1 ●
	Fractions , Decimals, Percents	Find percent of a number	0 of 1 ○
	Fractions , Decimals, Percents	Find percent of change (based on original)	1 of 1 ●
	Fractions , Decimals, Percents	Identify and calculate equivalent fractions	3 of 4 ●
	Fractions , Decimals, Percents	Simplify complex fractions	2 of 2 ●
	Fractions , Decimals, Percents	Simplify fractions	2 of 4 ●
	Fractions , Decimals, Percents	Solve fraction problems (horizontal)	4 of 9 ●

Note: This analysis is intended to show learning objectives, the number of test items in which they occur, and the number of those test items that John answered correctly. Some test items require mastery of multiple objectives, especially in mathematics. Therefore, a low score on an individual objective may have been caused by difficulty with other objectives found in the same test items, and should be interpreted cautiously.

	Fractions , Decimals, Percents	Solve problems containing mixed numbers	2 of 9	
	Fractions , Decimals, Percents	Use ratios to set up a proportion	3 of 3	
	Fractions , Decimals, Percents	Work with proportions (solve for missing number)	3 of 3	
	Fractions , Decimals, Percents	Write a fraction to show part of a set	2 of 2	
	Money Identification	Read & write money amounts with symbols (Over \$10)	1 of 1	
	Money Operations	Calculate interest (simple)	1 of 1	
	Multiplication Computation	Multiply by multiple-digit numbers (multipliers or factors) (2 to 3 digits)	3 of 6	
	Multiplication Computation	Multiply multiple-digit numbers (multiplicands or factors) (2 to 3 digits)	6 of 8	
	Multiplication Computation	Multiply multiple-digit numbers (multiplicands or factors) (4 or more digits)	2 of 3	
	Multiplication Computation	Multiply numbers with decimals	1 of 2	
	Multiplication Computation	Multiply numbers with fractions	2 of 5	
	Multiplication Computation	Multiply numbers with regrouping (carrying)	5 of 7	
	Multiplication Computation	Raise a number to a specified power (cube)	1 of 1	
	Multiplication Computation	Solve multiplication by a number (10, 100, 1000, 10000)	1 of 1	
	Multiplication Computation	Solve multiplication by a number (multiple of 10, 100, 1000)	1 of 1	
	Multiplication Computation	Use multiplication algorithm	2 of 2	
	Multiplication Concepts	Identify multiples	0 of 1	
	Operational Concepts	Perform operations with mixed measurement units (linear/area)	3 of 3	
	Operational Concepts	Perform operations with mixed measurement units (regrouping)	6 of 6	
	Operational Concepts	Perform operations with mixed measurement units (time)	1 of 1	
	Operational Concepts	Perform operations with mixed measurement units (weight/mass)	1 of 1	
	Operational Concepts	Use correct order of operations	4 of 5	
	Problem Solving Skills	Apply math to other areas (everyday life)	13 of 15	
	Problem Solving Skills	Identify steps in a process	5 of 6	
	Problem Solving Skills	Simplify a problem (removing irrelevant information)	2 of 2	
	Subtraction Computation	Subtract by multiple-digit numbers (subtrahends) (2 to 3 digits)	4 of 4	
	Subtraction Computation	Subtract by multiple-digit numbers (subtrahends) (4 or more digits)	3 of 4	
	Subtraction Computation	Subtract from multiple-digit numbers (minuends) (2 to 3 digits)	3 of 3	
	Subtraction Computation	Subtract from multiple-digit numbers (minuends) (4 or more digits)	4 of 5	
	Subtraction Computation	Subtract numbers with decimals	3 of 4	
	Subtraction Computation	Subtract numbers with fractions	3 of 4	
	Subtraction Computation	Subtract numbers with regrouping (borrowing)	5 of 6	
Data Analysis & Probability	Charts and Tables	Locate information on a table	0 of 1	
	Ranges, Mean, Median, Mode	Collect information on a set of data (mean)	1 of 2	
Geometry & Spatial Sense	Angles	Identify angles (Acute, Obtuse)	1 of 1	
	Line Relationships	Identify symbols for line relationships (, ⊥, ∥)	1 of 1	
Measurement	Area	Calculate area of a given shape (rectangle)	1 of 1	
	Area	Identify the formula used to calculate area (rectangle)	1 of 1	
	Area	Identify the formula used to calculate area (triangle)	0 of 1	
	General	Work with metric prefixes (convert between)	0 of 1	
	General	Work with metric prefixes (identify)	0 of 1	
	Maps & Scale	Make estimates based on map (area)	0 of 1	
	Maps & Scale	Make estimates based on map (perimeter)	0 of 1	
	Volume & Capacity	Calculate volume of a prism (rectangular)	1 of 1	
	Volume & Capacity	Identify the formula used to find volume of a prism (rectangular)	1 of 1	
Numbers & Number Sense	Digits & Place Values	Write numbers in expanded form (convert to standard)	1 of 1	
	Digits & Place Values	Write numbers in expanded form (decimals)	1 of 1	
	Digits & Place Values	Write numbers in expanded form (with powers of 10)	1 of 1	
	Misc Concepts	Identify integers	0 of 1	
	Multiples & Factors	Identify factors of a given number	1 of 1	
	Multiples & Factors	Identify prime and composite numbers	1 of 1	
	Odd & Even	Identify even and odd numbers	1 of 1	
	Ordering	Compare numbers and specify greater than and less than (3 or more digits)	1 of 1	
	Ordering	Order a set of given numbers	1 of 1	
	Powers & Roots	Identify symbols associated with powers and roots ($\sqrt{\quad}$, $\sqrt[3]{\quad}$, 2 , 3)	1 of 1	
	Reading and Writing	Read and write whole numbers (up to 10,000)	1 of 1	
	Reading and Writing	Write numbers with numerals	2 of 2	
	Reading and Writing	Write numbers (decimals)	1 of 1	
	Reading and Writing	Write numbers with words	2 of 2	
	Roman Numerals	Read and write Roman numerals	1 of 1	
Patterns, Functions, Algebra	Expressions	Combine positive and negative numbers (addition, subtraction)	1 of 1	
	Expressions	Simplify operations containing parentheses (multiplication, division)	2 of 2	
	Number Sentences and Equations	Combine terms with variables (addition, subtraction)	1 of 1	
	Number Sentences and Equations	Combine terms with variables (multiplication, division)	1 of 1	

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Number Sentences and Equations	Identify and use comparison symbols: =, >, < (basic)	0 of 1	○
Number Sentences and Equations	Solve one-step equations (with whole numbers)	1 of 1	●
Number Sentences and Equations	Solve two-step equations (with whole numbers)	1 of 1	●
Number Sentences and Equations	Use variables and letters (replace with numbers or letters)	0 of 2	○
Number Sentences and Equations	Use variables and letters (solve for in sentences)	1 of 1	●
Number Sentences and Equations	Write and solve number sentences (addition, subtraction)	0 of 1	○
Number Sentences and Equations	Write and solve number sentences (inequalities)	0 of 2	○
Number Sentences and Equations	Write and solve number sentences (multiplication, division)	0 of 1	○

Language

Category	Subcategory	Learning Objective	Correct
Capitalization	Beginning Words: Quotations	Capitalize beginning words (quotations)	3 of 4 ●
	Beginning Words: Sentences	Capitalize beginning words (sentences)	3 of 3 ●
	Pronoun "I"	Capitalize the pronoun "I"	1 of 1 ●
	Proper Adjectives	Capitalize proper adjectives	2 of 2 ●
	Proper Nouns: Dates	Capitalize proper nouns (days & dates)	1 of 1 ●
	Proper Nouns: Groups	Capitalize proper nouns (groups)	3 of 3 ●
	Proper Nouns: Languages	Capitalize proper nouns (languages)	1 of 1 ●
	Proper Nouns: Names	Capitalize proper nouns (names of persons)	3 of 3 ●
	Proper Nouns: Places	Capitalize proper nouns (names of places)	10 of 10 ●
	Recognize Correct	Recognize correct capitalization	4 of 5 ●
	Titles	Capitalize titles (literature)	4 of 4 ●
	Titles	Capitalize titles (personal)	3 of 3 ●
	Punctuation	Apostrophe: Contraction	Use apostrophes correctly (contraction)
Apostrophe: Possession		Use apostrophes correctly (possession)	1 of 4 ○
Comma: Addresses		Use commas correctly (addresses)	1 of 1 ●
Comma: Correspondence		Use commas correctly (correspondence)	1 of 1 ●
Comma: Dates		Use commas correctly (dates)	2 of 2 ●
Comma: Sentence Interrupters		Use commas correctly (sentence interrupters)	5 of 5 ●
Comma: Series		Use commas correctly (series)	1 of 2 ○
Comma: With Clauses		Use commas correctly (with clauses)	1 of 1 ●
Period: Abbreviations		Use periods correctly (abbreviation)	0 of 1 ○
Period: Ending Sentence		Use periods correctly (ending sentence)	6 of 7 ●
Question Mark		Use question marks correctly	1 of 1 ●
Quotation Mark		Use quotation marks correctly (closing)	3 of 3 ●
Quotation Mark		Use quotation marks correctly (opening)	0 of 1 ○
Recognize Correct		Recognize correction punctuation	7 of 8 ●
Spelling		Basic Spelling	Recognize and use correct spelling (letter insertion)
	Basic Spelling	Recognize and use correct spelling (letter inversion)	2 of 4 ○
	Basic Spelling	Recognize and use correct spelling (letter omission)	5 of 8 ●
	Basic Spelling	Recognize and use correct spelling (letter substitution)	6 of 11 ●
	Double Consonant	Recognize and use correct spelling (double consonants)	3 of 4 ●
	Internal Vowel	Recognize and use correct spelling (internal vowels)	9 of 13 ●
	Letter Reversal: General	Recognize and use correct spelling (letter reversal)	1 of 3 ○
	Letter Reversal: ie - ei	Recognize and use correct spelling (ie-ei reversal)	1 of 3 ○
	Multi-sound Consonant	Recognize and use correct spelling (multi-sound consonants)	2 of 5 ○
	Recognize Correct	Recognize and use correct spelling (no errors)	5 of 5 ●
	Silent Letter	Recognize and use correct spelling (silent letters)	6 of 10 ●
	Suffix	Recognize and use correct spelling (suffix)	2 of 4 ○
	Vowel + r	Recognize and use correct spelling (vowel + r)	0 of 1 ○
Structure	Inflectional Morphemes	Identify inflectional morphemes	0 of 2 ○
	Sentence Parts: Connectors	Identify parts of sentences (connectors, prepositions)	0 of 1 ○
	Sentence Parts: Modifiers	Identify parts of sentences (modifiers)	2 of 3 ●
	Sentence Parts: Noun	Identify parts of sentences (nouns, pronouns, phrases)	1 of 4 ○
	Sentence Parts: Other	Identify parts of sentences (prepositional phrases)	1 of 1 ●
	Sentence Parts: Verb	Identify parts of sentences (subject, predicate)	0 of 1 ○
	Sentence Parts: Verb	Identify parts of sentences (verbs, verbals, phrases)	3 of 6 ○
	Sentence Structure: Complete	Identify types of sentences (complex)	0 of 1 ○
	Sentence Structure: Complete	Identify types of sentences (compound)	0 of 1 ○
	Sentence Structure: Complete	Identify types of sentences (run-on)	1 of 1 ●
	Sentence Structure: Complete	Identify types of sentences (simple)	1 of 2 ○
	Sentence Structure: Incomplete	Identify types of sentences (incomplete or fragment)	1 of 1 ●
	Transformation	Transform sentences from one type to another	3 of 3 ●
	Transformation	Transform sentences from one type to another (active/passive)	1 of 1 ●

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	Transformation	Transform sentences from one type to another (question)	1 of 1	●
Usage	Standard English: Case	Use correct case in nouns and pronouns (nominative)	2 of 2	●
	Standard English: Case	Use correct case in nouns and pronouns (objective)	7 of 7	●
	Standard English: Number	Use subject-verb number agreement	6 of 6	●
	Standard English: Tense	Use correct verb tense (simple)	1 of 1	●
	Standard English: Tense	Use correct verb tense (with auxiliary)	4 of 4	●
	Standard English: Usage	Use standard English usage (confused verbs)	4 of 4	●
	Standard English: Usage	Use standard English usage (misc errors)	0 of 1	○
	Standard English: Usage	Use standard English usage (no error)	1 of 3	●
	Standard English: Usage	Use standard English usage (reflexive pronouns)	1 of 1	●
	Standard English: Usage	Use standard English usage (use of negatives)	0 of 1	○

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