Texas Assessment of Knowledge and Skills - Answer Key

Grade: 09
Subject: Reading
Administration: Spring 2003

The letter **D** indicates that the student expectation listed is from the English I TEKS.

Item Number	Correct Answer	Objective Measured	Student Expectations
01	B	01	D.7 (F)
02	F	01	D.7 (F)
03	D	01	D.7 (F)
04	F	01	D.7 (F)
05	A	02	D.11 (D)
06	J	02	D.11 (C)
07	A	02	D.10 (B)
08	F	02	D.11 (C)
09	C	02	D.11 (E)
10	G	02	D.11 (C)
11	B	02	D.11 (H)
12	J	03	D.12 (A)
13	A	03	D.7 (H)
14	H	03	D.12 (A)
15	B	01	D.6 (F)
16	H	01	D.7 (F)
17	D	01	D.7 (F)
18	J	01	D.6 (B)
19	B	01	D.7 (F)
20	G	02	D.11 (D)
21	B	02	D.11 (C)
22	H	02	D.11 (C)
23	A	02	D.11 (G)
24	J	02	D.11 (A)
25	B	03	D.7 (E)
26	H	03	D.10 (B)
27	A	03	D.12 (A)
28	H	03	D.7 (H)
29	D	03	D.7 (H)
30	F	03	D.7 (H)
31	D	03	D.19 (C)
32	F	03	D.19 (B)
33	C	03	D.20 (B)
34	*	02	D.10 (B)
35	*	03	D.10 (B)
36	*	03	D.10 (B)

***A scoring guide is used to determine the scores of the short-answer items.**

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Grade 9 Reading

Refer to the *TAKS Information Booklet* Grade 9 Reading, 10 English Language Arts, and 11 Exit Level English Language Arts for a more complete description of the objectives measured.

Objective 1: The student will demonstrate a basic understanding of culturally diverse written texts.

(6) **Reading/word identification/vocabulary development.** The student uses a variety of strategies to read unfamiliar words and to build vocabulary. The student is expected to

(B) rely on context to determine meanings of words and phrases such as figurative language, [idioms,] multiple-meaning words, and technical vocabulary;

(C) apply meanings of prefixes, roots, and suffixes in order to comprehend;

(E) use reference material such as glossary, dictionary, thesaurus, [and available technology] to determine precise meanings and usage; and

(F) identify the relation of word meanings in analogies, homonyms, synonyms/antonyms, and connotation/denotation.

(7) **Reading/comprehension.** The student comprehends selections using a variety of strategies. The student is expected to

(F) identify main ideas and their supporting details; and

(G) summarize texts.

(8) **Reading/variety of texts.** The student reads extensively and intensively for different purposes in varied sources, including world literature. The student is expected to

(B) read in such varied sources as diaries, journals, textbooks, maps, newspapers, letters, speeches, memoranda, [electronic texts, and other media].

Objective 2: The student will demonstrate an understanding of the effects of literary elements and techniques in culturally diverse written texts.

(10) **Reading/literary response.** The student expresses and supports responses to various types of texts. The student is expected to

(B) use elements of text to defend his/her own responses and interpretations.

(11) **Reading/literary concepts.** The student analyzes literary elements for their contributions to meaning in literary texts. The student is expected to

(A) recognize the theme (general observation about life or human nature) within a text;

(B) analyze the relevance of setting and time frame to text's meaning;

(C) analyze characters and identify time and point of view;

(D) identify basic conflicts;

(E) analyze the development of plot in narrative text;

(F) recognize and interpret important symbols;

(G) recognize and interpret poetic elements like metaphor, simile, personification, and the effect of sound on meaning; and

(H) understand literary forms and terms such as author, drama, biography, autobiography, myth, tall tale, dialogue, tragedy and comedy, [structure in poetry, epic, ballad,] protagonist, antagonist, paradox, analogy, dialect, and comic relief as appropriate to the selections being read.

Objective 3: The student will demonstrate the ability to analyze and critically evaluate culturally diverse written texts and visual representations.

(7) **Reading/comprehension.** The student comprehends selections using a variety of strategies. The student is expected to

(E) analyze text structures such as compare and contrast, cause and effect, and chronological ordering; and

(H) draw inferences such as conclusions, generalizations, and predictions and support them from text.

(8) **Reading/variety of texts.** The student reads extensively and intensively for different purposes in varied sources, including world literature. The student is expected to

(D) interpret the possible influences of the historical context on a literary work.

(10) **Reading/literary response.** The student expresses and supports responses to various types of texts. The student is expected to

(B) use elements of text to defend his/her own responses and interpretations.

(12) **Reading/analysis/evaluation.** The student reads critically to evaluate texts. The student is expected to

(A) analyze characteristics of text, including its structure, word choices, and intended audience;

(B) evaluate the credibility of information sources and determine the writer's motives;

(C) analyze text to evaluate the logical argument [and to determine the mode of reasoning used such as induction and deduction]; and

(D) analyze texts such as editorials, [documentaries,] and advertisements for bias and use of common persuasive techniques.

Grade 9 Reading (continued)

(19) **Viewing/representing/interpretation.** The student understands and interprets visual representations. The student is expected to

(B) analyze relationships, ideas, [and cultures] as represented in various media; and

(C) distinguish the purposes of various media forms such as informative texts, entertaining texts, and advertisements.

(20) **Viewing/representing/analysis.** The student analyzes and critiques the significance of visual representations. The student is expected to

(B) deconstruct media to get the main idea of the message's content; and

(C) evaluate and critique the persuasive techniques of media messages such as glittering generalities, logical fallacies, and symbols.

Texas Assessment of Knowledge and Skills - Answer Key

Grade: 09
Subject: Mathematics
Administration: Spring 2003

The letter **A** indicates that the student expectation listed is from the Algebra I TEKS.

Item Number	Correct Answer	Objective Measured	Student Expectations
01	D	10	8.14 (C)
02	G	03	A.C2 (G)
03	D	06	8.7 (D)
04	H	09	8.11 (B)
05	D	10	8.14 (B)
06	G	08	8.9 (B)
07	B	02	A.B2 (A)
08	H	04	A.C3 (B)
09	D	05	A.D1 (C)
10	G	05	A.D3 (A)
11	C	02	A.B2 (D)
12	F	07	8.7 (A)
13	D	04	A.C4 (A)
14	J	07	8.7 (C)
15	C	10	8.15 (A)
16	J	08	8.10 (A)
17	B	09	8.3 (B)
18	G	03	A.C2 (C)
19	D	02	A.B3 (A)
20	F	10	8.14 (A)
21	1248	07	8.7 (B)
22	J	10	8.15 (A)
23	C	10	8.14 (A)
24	G	01	A.B1 (D)
25	C	01	A.B1 (E)
26	H	08	8.8 (A)
27	A	05	A.D3 (A)
28	H	10	8.16 (B)
29	A	08	8.8 (B)
30	F	04	A.C3 (A)
31	C	07	8.7 (B)
32	H	06	8.6 (A)
33	B	10	8.15 (A)
34	G	10	8.14 (A)
35	C	09	8.3 (B)
36	H	09	8.11 (A)
37	A	08	8.8 (C)
38	H	08	8.9 (A)
39	A	03	A.C2 (A)
40	G	04	A.C3 (C)
41	D	03	A.C1 (C)
42	G	01	A.B1 (A)
43	D	06	8.7 (D)
44	F	03	A.C2 (D)
45	A	01	A.B1 (C)
46	H	02	A.B4 (A)
47	B	06	8.6 (B)
48	F	02	A.B2 (C)
49	D	01	A.B1 (B)
50	G	04	A.C3 (A)
51	C	09	8.12 (C)
52	G	05	A.D1 (C)

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Grade 9 Mathematics

Refer to the *TAKS Information Booklet* Mathematics Grades 5-9 or Mathematics Grades 8-11 for a more complete description of the objectives measured.

Objective 1: The student will describe functional relationships in a variety of ways.

A(b)(1) **Foundations for functions.** The student understands that a function represents a dependence of one quantity on another and can be described in a variety of ways.

(A) The student describes independent and dependent quantities in functional relationships.

(B) The student [gathers and records data, or] uses data sets, to determine functional (systematic) relationships between quantities.

(C) The student describes functional relationships for given problem situations and writes equations or inequalities to answer questions arising from the situations.

(D) The student represents relationships among quantities using [concrete] models, tables, graphs, diagrams, verbal descriptions, equations, and inequalities.

(E) The student interprets and makes inferences from functional relationships.

Objective 2: The student will demonstrate an understanding of the properties and attributes of functions.

A(b)(2) **Foundations for functions.** The student uses the properties and attributes of functions.

(A) The student identifies [and sketches] the general forms of linear ($y = x$) and quadratic ($y = x^2$) parent functions.

(B) For a variety of situations, the student identifies the mathematical domains and ranges and determines reasonable domain and range values for given situations.

(C) The student interprets situations in terms of given graphs [or creates situations that fit given graphs].

(D) In solving problems, the student [collects and] organizes data, [makes and] interprets scatterplots, and models, predicts, and makes decisions and critical judgments.

A(b)(3) **Foundations for functions.** The student understands how algebra can be used to express generalizations and recognizes and uses the power of symbols to represent situations.

(A) The student uses symbols to represent unknowns and variables.

(B) Given situations, the student looks for patterns and represents generalizations algebraically.

A(b)(4) **Foundations for functions.** The student understands the importance of the skills required to manipulate symbols in order to solve problems and uses the necessary algebraic skills required to simplify algebraic expressions and solve equations and inequalities in problem situations.

(A) The student finds specific function values, simplifies polynomial expressions, transforms and solves equations, and factors as necessary in problem situations.

(B) The student uses the commutative, associative, and distributive properties to simplify algebraic expressions.

Objective 3: The student will demonstrate an understanding of linear functions.

A(c)(1) **Linear functions.** The student understands that linear functions can be represented in different ways and translates among their various representations.

(A) The student determines whether or not given situations can be represented by linear functions.

(C) The student translates among and uses algebraic, tabular, graphical, or verbal descriptions of linear functions.

A(c)(2) **Linear functions.** The student understands the meaning of the slope and intercepts of linear functions and interprets and describes the effects of changes in parameters of linear functions in real-world and mathematical situations.

(A) The student develops the concept of slope as rate of change and determines slopes from graphs, tables, and algebraic representations.

(B) The student interprets the meaning of slope and intercepts in situations using data, symbolic representations, or graphs.

(C) The student investigates, describes, and predicts the effects of changes in m and b on the graph of $y = mx + b$.

(D) The student graphs and writes equations of lines given characteristics such as two points, a point and a slope, or a slope and y-intercept.

(E) The student determines the intercepts of linear functions from graphs, tables, and algebraic representations.

(F) The student interprets and predicts the effects of changing slope and y-intercept in applied situations.

(G) The student relates direct variation to linear functions and solves problems involving proportional change.

Objective 4: The student will formulate and use linear equations and inequalities.

A(c)(3) **Linear functions.** The student formulates equations and inequalities based on linear functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation.

(A) The student analyzes situations involving linear functions and formulates linear equations or inequalities to solve problems.

(B) The student investigates methods for solving linear equations and inequalities using [concrete] models, graphs, and the properties of equality, selects a method, and solves the equations and inequalities.

(C) For given contexts, the student interprets and determines the reasonableness of solutions to linear equations and inequalities.

A(c)(4) **Linear functions.** The student formulates systems of linear equations from problem situations, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation.

(A) The student analyzes situations and formulates systems of linear equations to solve problems.

Objective 5: The student will demonstrate an understanding of quadratic and other nonlinear functions.

A(d)(1) **Quadratic and other nonlinear functions.** The student understands that the graphs of quadratic functions are affected by the parameters of the function and can interpret and describe the effects of changes in the parameters of quadratic functions.

(C) The student investigates, describes, and predicts the effects of changes in c on the graph of $y = x^2 + c$.

A(d)(3) **Quadratic and other nonlinear functions.** The student understands there are situations modeled by functions that are neither linear nor quadratic and models the situations.

(A) The student uses [patterns to generate] the laws of exponents and applies them in problem-solving situations.

Objective 6: The student will demonstrate an understanding of geometric relationships and spatial reasoning.

(8.6) **Geometry and spatial reasoning.** The student uses transformational geometry to develop spatial sense. The student is expected to

(A) generate similar shapes using dilations including enlargements and reductions; and

(B) graph dilations, reflections, and translations on a coordinate plane.

(8.7) **Geometry and spatial reasoning.** The student uses geometry to model and describe the physical world. The student is expected to

(D) locate and name points on a coordinate plane using ordered pairs of rational numbers.

Objective 7: The student will demonstrate an understanding of two- and three-dimensional representations of geometric relationships and shapes.

(8.7) **Geometry and spatial reasoning.** The student uses geometry to model and describe the physical world. The student is expected to

(A) draw solids from different perspectives;

(B) use geometric concepts and properties to solve problems in fields such as art and architecture; and

(C) use pictures or models to demonstrate the Pythagorean Theorem.

Objective 8: The student will demonstrate an understanding of the concepts and uses of measurement and similarity.

(8.8) **Measurement.** The student uses procedures to determine measures of solids. The student is expected to

(A) find surface area of prisms and cylinders using [concrete] models and nets (two-dimensional models);

(B) connect models to formulas for volume of prisms, cylinders, pyramids, and cones; and

(C) estimate answers and use formulas to solve application problems involving surface area and volume.

(8.9) **Measurement.** The student uses indirect measurement to solve problems. The student is expected to

(A) use the Pythagorean Theorem to solve real-life problems; and

(B) use proportional relationships in similar shapes to find missing measurements.

(8.10) **Measurement.** The student describes how changes in dimensions affect linear, area, and volume measures. The student is expected to

(A) describe the resulting effects on perimeter and area when dimensions of a shape are changed proportionally; and

(B) describe the resulting effect on volume when dimensions of a solid are changed proportionally.

Objective 9: The student will demonstrate an understanding of percents, proportional relationships, probability, and statistics in application problems.

(8.1) **Number, operation, and quantitative reasoning.** The student understands that different forms of numbers are appropriate for different situations. The student is expected to

(B) select and use appropriate forms of rational numbers to solve real-life problems including those involving proportional relationships.

(8.3) **Patterns, relationships, and algebraic thinking.** The student identifies proportional relationships in problem situations and solves problems. The student is expected to

(B) estimate and find solutions to application problems involving percents and proportional relationships such as similarity and rates.

(8.11) **Probability and statistics.** The student applies concepts of theoretical and experimental probability to make predictions. The student is expected to

(A) find the probabilities of compound events (dependent and independent); and

(B) use theoretical probabilities and experimental results to make predictions and decisions.

(8.12) **Probability and statistics.** The student uses statistical procedures to describe data. The student is expected to

(A) select the appropriate measure of central tendency to describe a set of data for a particular purpose; and

(C) construct circle graphs, bar graphs, and histograms, with and without technology.

(8.13) **Probability and statistics.** The student evaluates predictions and conclusions based on statistical data. The student is expected to

(B) recognize misuses of graphical or numerical information and evaluate predictions and conclusions based on data analysis.

Objective 10: The student will demonstrate an understanding of the mathematical processes and tools used in problem solving.

(8.14) **Underlying processes and mathematical tools.** The student applies Grade 8 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to

(A) identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics;

(B) use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness; and

(C) select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem.

(8.15) **Underlying processes and mathematical tools.** The student communicates about Grade 8 mathematics through informal and mathematical language, representations, and models. The student is expected to

(A) communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models.

(8.16) **Underlying processes and mathematical tools.** The student uses logical reasoning to make conjectures and verify conclusions. The student is expected to

(A) make conjectures from patterns or sets of examples and nonexamples; and

(B) validate his/her conclusions using mathematical properties and relationships.