

APPLIED MATHEMATICS

Paper-and-Pencil/Multiple-Choice Response

45 Minutes, 33 Problems

Level	Characteristics of Problems	Skills
3	<ul style="list-style-type: none"> Translate easily from a verbal setup to a mathematical equation All information provided is necessary to solve the problems and is presented in logical order Units of measurement not involved in actual calculations (i.e., function solely as labels), except dollars and cents 	<ul style="list-style-type: none"> Perform single-step basic operations (addition, subtraction, multiplication, and division) using whole numbers Change a number from one form to another, using whole numbers, fractions, decimals, and percentages Add and subtract negative numbers as well as positive numbers
4	<ul style="list-style-type: none"> Involve reordering verbal information before performing calculations May include simple charts or graphs Must be read carefully to determine which operations to perform and in what order 	<ul style="list-style-type: none"> Perform one or two mathematical operations, such as addition, subtraction, or multiplication on several positive or negative numbers Add commonly known fractions, decimals, or percentages (e.g., $\frac{1}{2}$, .75, 25%), and three fractions that share a common denominator Calculate averages, simple ratios, proportions, and rates, using whole numbers and decimals
5	<ul style="list-style-type: none"> Involve separating important facts from extraneous information Several steps of logic involved in calculations Mixed unit quantities may need conversion to a single and/or different set of units (e.g., 4 hours and 30 minutes = 4.5 hours) 	<ul style="list-style-type: none"> Perform single-step conversions within and between English and non-English systems of measurement Calculate perimeters and areas of basic shapes Calculate percentage discounts and markups Compute the "best deal" using one- and two-step calculations and then comparing costs
6	<ul style="list-style-type: none"> May require considerable translation from verbal form to mathematical expression May require considerable setup and involve multiple-step calculations or conversions May involve transposition of formulas before calculating (e.g., $v = ir \Leftrightarrow r = v/i$) May involve conversions using two formulas within a system of measurement 	<ul style="list-style-type: none"> Calculate using negative numbers, fractions, ratios, percentages, and mixed numbers Calculate multiple rates and then compare the rates or use them to perform other calculations Find basic areas and volumes of rectangular solids Calculate the "best deal" using the result in another problem Identify and correct errors in calculations
7	<ul style="list-style-type: none"> Content or format may be unusual Information may be incomplete or implicit, requiring derivation from the setup the information needed to solve the problem Involving several steps or reasoning and multiple calculations May include nonlinear functions (e.g., rates of change), and applications of basic statistical concepts (e.g., error of measurement) 	<ul style="list-style-type: none"> Solve problems involving more than one unknown Calculate the percentage of change Calculate the multiple areas and volumes of spheres, cylinders, and cones Setup and manipulate complex ratios and proportions Determine the best economic value of several alternatives Find mistakes in multiple-step calculations

ACT, Inc. is the source for information regarding WorkKeys Assessments.

WorkKeys® is a registered trademark of ACT, Inc.

LOCATING INFORMATION

Paper-and-Pencil/Multiple-Choice Response

45 Minutes, 38 Problems

Level	Characteristics of Graphics	Skills
3	<ul style="list-style-type: none"> Elementary workplace graphics such as simple order forms, bar graphs, tables, flowcharts, and floor plans 	<ul style="list-style-type: none"> Find one or two pieces of information in these types of elementary graphics Fill in one or two pieces of information that are missing from these types of elementary graphics
4	<ul style="list-style-type: none"> Straightforward workplace graphics such as basic order forms, line graphs, tables, instrument gauges, maps, flowcharts, and diagrams 	<ul style="list-style-type: none"> Find several pieces of information in these types of graphics Summarize and/or compare information and trends in a single graphic Summarize and/or compare information and trends among more than one workplace graphic, such as a charge slip and an invoice showing related information; in order to accomplish this, the examinee must determine the relationship among the graphics
5	<ul style="list-style-type: none"> Complicated workplace graphics, such as detailed forms, tables, graphs, maps, instrument gauges, and diagrams 	<ul style="list-style-type: none"> Summarize and/or compare information and trends in a single graphic Summarize and/or compare information and trends among more than one workplace graphic, such as a bar chart and a data table showing related information; in order to accomplish this, the examinee must sort through distracting information
6	<ul style="list-style-type: none"> Large amount of information Challenging presentations Very detailed graphs, charts, tables, forms, maps, and diagrams 	<ul style="list-style-type: none"> Draw conclusions from the information presented in these types of graphics Apply information from these types of graphics to specific situations Make decisions and/or predictions requiring judgements based on the information presented in these types of graphics; in order to accomplish this, the examinee must analyze the data within the graphics

ACT, Inc. is the source for information regarding WorkKeys Assessments.

WorkKeys® is a registered trademark of ACT, Inc.

READING FOR INFORMATION

Paper-and-Pencil/Multiple-Choice Response

45 Minutes, 33 Problems

Level	Characteristics of Reading Materials and Questions	Skills
3	<ul style="list-style-type: none"> ▪ Short, uncomplicated passages which use elementary vocabulary ▪ Basic company policies, procedures, and announcements ▪ All necessary information stated clearly in the reading materials ▪ Focus on the main points of the passages ▪ Wording of the questions and answers similar or identical to the wording used in the reading materials 	<ul style="list-style-type: none"> ▪ Identify uncomplicated key concepts and simple details ▪ Recognize the proper placement of a step in a sequence of events, or the proper time to perform a task ▪ Identify the meaning of a word that is defined within the passage ▪ Identify the meaning of a simple word that is not defined within the passage ▪ Recognize the application of instructions given in the passage to situations that are also described in the passage
4	<ul style="list-style-type: none"> ▪ Slightly more complex reading passages than those at Level 3 ▪ More detail and greater number of steps in described procedures ▪ Described policies and procedures containing a variety of factors which must be considered in order to decide on appropriate behavior ▪ Vocabulary, while elementary, includes words that are more difficult than those at Level 3 ▪ Questions and answers paraphrased from the passage 	<ul style="list-style-type: none"> ▪ Identify important details that are less obvious than those in Level 3 ▪ Recognize the application of more complex instructions, some of which involve several steps, to described situations ▪ Recognize cause-effect relationships ▪ Determine the meaning of words that are not defined in the reading material
5	<ul style="list-style-type: none"> ▪ More details, greater complexity, and broader topics than those at Level 4 ▪ Specialized words and phrases (e.g., jargon and technical terms), and some words with multiple meanings ▪ Application of information given in the passage to a situation that is not specifically described in the passage ▪ Several considerations to be taken into account in order to choose the correct responses 	<ul style="list-style-type: none"> ▪ Identify the paraphrased definition of a technical term or jargon that is defined in the passage ▪ Recognize the application of technical terms or jargon to stated situations ▪ Recognize the definition of an acronym that is defined in the passage ▪ Identify the appropriate definition of a word with multiple meanings ▪ Recognize the application of instructions from the passage to new situations that are similar to those described in the reading materials ▪ Recognize the application of more complex instructions to described situations, including conditionals and procedures with multiple steps

<p>6</p>	<ul style="list-style-type: none"> ▪ More complex presentation of information ▪ Excerpts from regulatory and legal documents ▪ More elaborate procedures and concepts described ▪ Advanced vocabulary, jargon, and technical terms ▪ Most necessary information not clearly stated in the passages 	<ul style="list-style-type: none"> ▪ Generalize beyond the stated situation and recognize implied details and the probable rationale behind policies ▪ Recognize the application of jargon or technical terms to new situations ▪ Recognize the application of complex instructions to new situations ▪ Recognize, from context, the less common meaning of a word with multiple meanings ▪ Generalize from the passage to situations not described in the passage ▪ Identify implied details ▪ Explain the rationale behind a procedure, policy, or communication ▪ Generalize from the passage to a somewhat similar situation
<p>7</p>	<ul style="list-style-type: none"> ▪ More difficult passages ▪ Denser information ▪ More complex concepts ▪ More difficult vocabulary ▪ Jargon and technical terms whose definitions must be derived from context 	<ul style="list-style-type: none"> ▪ Recognize the definitions of difficult, uncommon jargon or technical terms, based on the context of the reading materials ▪ Figure out the general principles underlying described situations and apply them to situations neither described in, nor completely similar to, those in the passage

**ACT, Inc. is the source for information regarding WorkKeys Assessments.
WorkKeys® is a registered trademark of ACT, Inc.**

TEAMWORK

Videotape/Multiple-Choice Response

2 Parts, 40 Minutes Each, 36 Problems

Level	Characteristics of Situations	Skills
3	<ul style="list-style-type: none"> ▪ Simple work situations involving one problem or source of difficulty ▪ Clear team goals and consequences ▪ All the resources necessary for addressing the problem readily available ▪ Good team relationships 	<ul style="list-style-type: none"> ▪ Identify team goals and ways to work with other team members to accomplish team goals ▪ Recognize that a team is having problems finishing a task and identify the cause of those problems ▪ Choose actions that support the ideas of other team members in a positive way to accomplish team goals ▪ Recognize the need for trusted and dependability in a team environment
4	<ul style="list-style-type: none"> ▪ Work situations involving several problems or sources of difficulty ▪ Unclear goals and consequences ▪ Limited resources ▪ Team members having diverse needs 	<ul style="list-style-type: none"> ▪ Identify the organization of tasks and the time schedule that would help accomplish team goals efficiently, creatively, and effectively ▪ Select approaches that accept direction from other team members in order to accomplish tasks and to build and keep up good team relations ▪ Identify behaviors that show appreciation for the personal and professional qualities of other team members and respect for their diversity ▪ Recognize the need for commitment to quality and customer sensitivity while pursuing the team goal
5	<ul style="list-style-type: none"> ▪ Work situations involving many subtle and competing problems and sources of difficulty ▪ Unclear goals and consequences ▪ Limited resources ▪ Ambiguous team relationships 	<ul style="list-style-type: none"> ▪ Identify courses of action that give direction effectively to other team members ▪ Determine the best use of team talents to accomplish those goals ▪ Choose approaches that encourage and support the efforts of other team members to further team relationships and/or task accomplishment ▪ Consider the possible effects of, and evaluate the results of, alternative behaviors on both team relationships and task accomplishment

<h1>6</h1>	<ul style="list-style-type: none"> ▪ Work situations involving complex problems and sources of difficulty ▪ Unclear and conflicting team goals and consequences ▪ Limited or unavailable resources ▪ Frequent disagreement and arguments among team members 	<ul style="list-style-type: none"> ▪ Identify the focus of team activity and select a new focus if that would help the team meet its goals more effectively ▪ Select approaches that show the willingness to give and take direction as needed to further team goals(e.g., recognize the organization of team members' tasks that would best serve the larger goals of the team) ▪ Choose approaches that encourage a team to act as a unit and reach agreement when discussing specific issues ▪ Identify actions that would help manage differences of opinion among team members, moving the team toward its goals while valuing and supporting individual diversity
------------	---	---

**ACT, Inc. is the source for information regarding WorkKeys Assessments.
WorkKeys® is a registered trademark of ACT, Inc.**

LISTENING AND WRITING: WRITING

Audiotape/Constructed Response

40 Minutes, 6 Messages

Level	Characteristics of Responses	Skills
<p>In all cases, examinees listen to audio taped messages and then write down the information they have heard in order to convey it to someone else. Examinees with extremely limited listening skills may be unable to produce a response that is sufficiently on topic to receive a valid <i>Writing</i> score.</p>		
1	<ul style="list-style-type: none"> ▪ Message inadequately conveyed ▪ Gross mechanical errors: problems with spelling, punctuation, etc., may make deciphering difficult ▪ Overall lack of proper sentence structure 	<ul style="list-style-type: none"> ▪ Write messages in English but a large number of major grammatical, punctuation, spelling, and/or other mechanical errors make the messages very unclear and inconsistent with standard business English
2	<ul style="list-style-type: none"> ▪ Message adequately conveyed ▪ Many mechanical errors: problems with spelling, punctuation, etc., interfere with comprehension ▪ Weak sentence structure: incomplete sentences or poorly structured sentences (e.g., comma splices, fused) 	<ul style="list-style-type: none"> ▪ Write messages that are generally understandable but many errors in grammar, punctuation, and/or sentence structure make understanding these messages somewhat difficult
3	<ul style="list-style-type: none"> ▪ Message clearly conveyed ▪ Some mechanical errors: problems with spelling, punctuation, etc., do not interfere with comprehension ▪ Adequate sentence structure (e.g., most sentences are complete) 	<ul style="list-style-type: none"> ▪ Write messages that are clear and generally consistent with standard business English
4	<ul style="list-style-type: none"> ▪ Message clearly conveyed ▪ May have a few minor errors in grammar and punctuation but these mechanical errors do not interfere with comprehension ▪ Good sentence structure (e.g., all sentences are complete) ▪ Adequate style: sentences may be somewhat choppy; overall message may not be completely smooth or logical ▪ Writing style may lack clear organization and appropriate transitions 	<ul style="list-style-type: none"> ▪ Write messages that are clear and generally consistent with standard business English
5	<ul style="list-style-type: none"> ▪ Message clearly conveyed ▪ Highly appropriate for the business setting of the prompt ▪ No mechanical errors ▪ Good sentence structure ▪ Smooth and logical style 	<ul style="list-style-type: none"> ▪ Write messages that are clear and highly consistent with standard business English