

## Reading for Information\*

### Characteristics/Skills

There are five levels of difficulty. Level 3 is the least complex and Level 7 is the most complex. The levels build on each other, each incorporating the skills assessed at the preceding levels. For example, at Level 5, individuals need the skills from Levels 3, 4, and 5. The reading materials at Level 3 are short and direct. The material becomes longer, denser, and more difficult to use as readers move toward Level 7. The tasks also become more complex as readers move from Level 3 to Level 7. At Level 3, readers begin by finding very obvious details and following short instructions. At the more complex levels, tasks can also involve more application and interpretation.

Level	Characteristics of Items	Skills
<b>3</b>	<ul style="list-style-type: none"><li>Reading materials include basic company policies, procedures, and announcements</li><li>Reading materials are short and simple, with no extra information</li><li>Reading materials tell readers what they should do</li><li>All needed information is stated clearly and directly</li><li>Items focus on the main points of the passages</li><li>Wording of the questions and answers is similar or identical to the wording used in the reading materials</li></ul>	<ul style="list-style-type: none"><li>Identify main ideas and clearly stated details</li><li>Choose the correct meaning of a word that is clearly defined in the reading</li><li>Choose the correct meaning of common, everyday workplace words</li><li>Choose when to perform each step in a short series of steps</li><li>Apply instructions to a situation that is the same as the one in the reading materials</li></ul>

Level	Characteristics of Items	Skills
<b>4</b>	<ul style="list-style-type: none"><li>Reading materials include company policies, procedures, and notices</li><li>Reading materials are straightforward, but have longer sentences and contain a number of details</li><li>Reading materials use common words, but do have some harder words, too</li><li>Reading materials describe procedures that include several steps</li><li>When following the procedures, individuals must think about changing conditions that affect what they should do</li><li>Questions and answers are often paraphrased from the passage</li></ul>	<ul style="list-style-type: none"><li>Identify important details that may not be clearly stated</li><li>Use the reading material to figure out the meaning of words that are not defined</li><li>Apply instructions with several steps to a situation that is the same as the situation in the reading materials</li><li>Choose what to do when changing conditions call for a different action (follow directions that include "if-then" statements)</li></ul>

Level	Characteristics of Items	Skills
<b>5</b>	<ul style="list-style-type: none"><li>Policies, procedures, and announcements include all of the information needed to finish a task</li><li>Information is stated clearly and directly, but the materials have many details</li><li>Materials also include jargon, technical terms, acronyms, or words that have several meanings</li><li>Application of information given in the passage to a situation that is not specifically described in the passage</li><li>There are several considerations to be taken into account in order to choose the correct actions</li></ul>	<ul style="list-style-type: none"><li>Figure out the correct meaning of a word based on how the word is used</li><li>Identify the correct meaning of an acronym that is defined in the document</li><li>Identify the paraphrased definition of a technical term or jargon that is defined in the document</li><li>Apply technical terms and jargon and relate them to stated situations</li><li>Apply straightforward instructions to a new situation that is similar to the one described in the material</li><li>Apply complex instructions that include conditionals to situations described in the materials</li></ul>

Level	Characteristics of Items	Skills
<b>6</b>	<p>Reading materials include elaborate procedures, complicated information, and legal regulations found in all kinds of workplace documents</p> <p>Complicated sentences with difficult words, jargon, and technical terms</p> <p>Most of the information needed to answer the items is not clearly stated</p>	<p>Identify implied details</p> <p>Use technical terms and jargon in new situations</p> <p>Figure out the less common meaning of a word based on the context</p> <p>Apply complicated instructions to new situations</p> <p>Figure out the principles behind policies, rules, and procedures</p> <p>Apply general principles from the materials to similar and new situations</p> <p>Explain the rationale behind a procedure, policy, or communication</p>

Level	Characteristics of Items	Skills
<b>7</b>	<p>Very complex reading materials</p> <p>Information includes a lot of details</p> <p>Complicated concepts</p> <p>Difficult vocabulary</p> <p>Unusual jargon and technical terms are used, but not defined</p> <p>Writing often lacks clarity and direction</p> <p>Readers must draw conclusions from some parts of the reading and apply them to other parts</p>	<p>Figure out the definitions of difficult, uncommon words based on how they are used</p> <p>Figure out the meaning of jargon or technical terms based on how they are used</p> <p>Figure out the general principles behind policies and apply them to situations that are quite different from any described in the materials</p>

\*Information about WorkKeys® comes from [www.act.org/workkeys](http://www.act.org/workkeys).

## Applied Mathematics\*

### Characteristics/Skills

There are five levels of difficulty. Level 3 is the least complex and Level 7 is the most complex. The levels build on each other, each incorporating the skills assessed at the previous levels. For example, at Level 5, individuals need the skills from Levels 3, 4, and 5. Examples are included with each level description.

Level	Characteristics of Items	Skills
<b>3</b>	<ul style="list-style-type: none"><li>Translate easily from a word problem to a math equation</li><li>All needed information is presented in logical order</li><li>No extra information</li></ul>	<ul style="list-style-type: none"><li>Solve problems that require a single type of mathematics operation (addition, subtraction, multiplication, and division) using whole numbers</li><li>Add or subtract negative numbers</li><li>Change numbers from one form to another using whole numbers, fractions, decimals, or percentages</li><li>Convert simple money and time units (e.g., hours to minutes)</li></ul>

Level	Characteristics of Items	Skills
<b>4</b>	<ul style="list-style-type: none"><li>Information may be presented out of order</li><li>May include extra, unnecessary information</li><li>May include a simple chart, diagram, or graph</li></ul>	<ul style="list-style-type: none"><li>Solve problems that require one or two operations</li><li>Multiply negative numbers</li><li>Calculate averages, simple ratios, simple proportions, or rates using whole numbers and decimals</li><li>Add commonly known fractions, decimals, or percentages (e.g., <math>\frac{1}{2}</math>, .75, 25%)</li><li>Add up to three fractions that share a common denominator</li><li>Multiply a mixed number by a whole number or decimal</li><li>Put the information in the right order before performing calculations</li></ul>

Level	Characteristics of Items	Skills
<b>5</b>	<ul style="list-style-type: none"><li>Problems require several steps of logic and calculation (e.g., problem may involve completing an order form by totaling the order and then computing tax)</li></ul>	<ul style="list-style-type: none"><li>Decide what information, calculations, or unit conversions to use to solve the problem</li><li>Look up a formula and perform single-step conversions within or between systems of measurement</li><li>Calculate using mixed units (e.g., 3.5 hours and 4 hours 30 minutes)</li><li>Divide negative numbers</li><li>Find the best deal using one- and two-step calculations and then comparing results</li><li>Calculate perimeters and areas of basic shapes (rectangles and circles)</li><li>Calculate percent discounts or markups</li></ul>

Level	Characteristics of Items	Skills
<b>6</b>	<ul style="list-style-type: none"><li>May require considerable translation from verbal form to mathematical expression</li><li>Generally require considerable setup and involve multiple-step calculations</li></ul>	<ul style="list-style-type: none"><li>Use fractions, negative numbers, ratios, percentages, or mixed numbers</li><li>Rearrange a formula before solving a problem</li><li>Use two formulas to change from one unit</li></ul>

to another within the same system of measurement

Use two formulas to change from one unit in one system of measurement to a unit in another system of measurement

Find mistakes in questions that belong at Levels 3, 4, and 5

Find the best deal and use the result for another calculation

Find areas of basic shapes when it may be necessary to rearrange the formula, convert units of measurement in the calculations, or use the result in further calculations

Find the volume of rectangular solids

Calculate multiple rates

Level	Characteristics of Items	Skills
7	<p>Content or format may be unusual</p> <p>Information may be incomplete or implicit</p> <p>Problems often involve multiple steps of logic and calculation</p>	<p>Solve problems that include nonlinear functions and/or that involve more than one unknown</p> <p>Find mistakes in Level 6 questions</p> <p>Convert between systems of measurement that involve fractions, mixed numbers, decimals, and/or percentages</p> <p>Calculate multiple areas and volumes of spheres, cylinders, or cones</p> <p>Set up and manipulate complex ratios or proportions</p> <p>Find the best deal when there are several choices</p> <p>Apply basic statistical concepts</p>

\*Information about WorkKeys® comes from [www.act.org/workkeys](http://www.act.org/workkeys).

## Locating Information\*

### Characteristics/Skills

There are four levels of difficulty. Level 3 is the least complex and Level 6 is the most complex. The levels build on each other, each incorporating the skills assessed at the preceding levels. For example, Level 5 includes the skills used at Levels 3, 4, and 5. At Level 3, examinees look for information in simple graphics and fill in information that is missing from simple graphics. At Level 6, examinees may use the information in one or more complex graphics to draw conclusions and make decisions. The complexity can also increase as the quantity and/or density of the information increases.

Level	Characteristics of Items	Skills
<b>3</b>	Elementary workplace graphics such as simple order forms, bar graphs, tables, flowcharts, maps, instrument gauges, or floor plans One graphic used at a time	Find one or two pieces of information in a graphic Fill in one or two pieces of information that are missing from a graphic

Level	Characteristics of Items	Skills
<b>4</b>	Straightforward workplace graphics such as basic order forms, diagrams, line graphs, tables, flowcharts, instrument gauges, or maps One or two graphics are used at a time	Find several pieces of information in one or two graphics Understand how graphics are related to each other Summarize information from one or two straightforward graphics Identify trends shown in one or two straightforward graphics Compare information and trends shown in one or two straightforward graphics

Level	Characteristics of Items	Skills
<b>5</b>	Complicated workplace graphics, such as detailed forms, tables, graphs, diagrams, maps, or instrument gauges Graphics may have less common formats One or more graphics are used at a time	Sort through distracting information Summarize information from one or more detailed graphics Identify trends shown in one or more detailed or complicated graphics Compare information and trends from one or more complicated graphics

Level	Characteristics of Items	Skills
<b>6</b>	Very complicated and detailed graphs, charts, tables, forms, maps, and diagrams Graphics contain large amounts of information and may have challenging formats One or more graphics are used at a time Connections between graphics may be subtle	Draw conclusions based on one complicated graphic or several related graphics Apply information from one or more complicated graphics to specific situations Use the information to make decisions

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