

# Alabama Educator Certification Testing Program 



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A copy of the full Code may be obtained free of charge from ACT Customer Services (68), P.O. Box 1008, Iowa City, IA 52243-1008, 319/337-1429.

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## Basic Information

## What is the ACT WorkKeys ${ }^{\circledR}$ system?

The ACT WorkKeys system from $\mathrm{ACT}^{\text {™ }}$ is designed to measure and aid improvement of basic workplace skills in all kinds of workplaces, including schools.

The ACT WorkKeys system consists of job profiling (finding out which skills are needed on the job), assessments (the tests you'll be taking plus several others), reporting (telling you how your skills match job requirements), and instructional support (guidance related to improving skill levels).

## Why are ACT WorkKeys skills important?

ACT WorkKeys skills are the basic skills needed to carry out job-specific tasks. As a teacher, you will often have to perform mathematical calculations, read memos, policies, and instructions, and write emails, letters, and other communications. In other words, you will be using the ACT WorkKeys skills of Applied Mathematics, Reading for Information, and Writing.

## How does the system work?

The Alabama State Department of Education has used the ACT WorkKeys profiling process to determine what level scores on the Applied Mathematics, Reading for Information and Writing assessments are needed by prospective Alabama teachers. You will receive a score report that will tell you whether or not you achieved the necessary scores and that will provide information about the next steps to take. Your scores will also be sent to your college or university.

## Can I study for the tests?

Since the ACT WorkKeys system measures applied skills, you can't cram to memorize answers for the tests. However, this book contains descriptions of the skills required for each level score of each test. You can also use the practice sets to see typical ACT WorkKeys test questions.

## How are the tests administered?

The Alabama Educator Certification Testing Program assessments are administered as paper-and- pencil exams.

# Test Taking Tips <br> For the Applied Mathematics and Reading for Information Assessments 

A description of the Applied Mathematics and Reading for Information assessments follows. Each assessment contains multiple-choice items with a question followed by five possible answers from which you are to choose the best one.

## Pace yourself.

The time limits set for each ACT WorkKeys test give nearly everyone enough time to finish all the questions. However, it is important to pace yourself. Don't spend too much time on one problem or reading section; go on to the other questions and come back if there is time.

## Listen to or read the directions for each test carefully.

Before you begin taking one of the ACT WorkKeys tests, pay careful attention to the directions.
Listen to the verbal instructions provided before testing starts and read the directions provided in the test booklet.

These tests ask for the best answer. It is important to keep this in mind when answering the questions, because it will sometimes be possible to think of responses that would be better than any of those offered or to defend a choice as not entirely wrong. Best-response formats are consistent with the real world, where choosing among less-than-perfect alternatives is routine.

You may want to work out the answer you feel is correct and look for it among the choices given. If your answer is not among the choices provided, reread the question and consider all of the answer choices again to find the best one.

## Read each question carefully.

It is important that you understand what each question asks. Some questions will require you to go through several steps to find the best answer, while others can be answered more quickly.

## Answer the easy questions first.

The best strategy for taking a test is to answer the easy questions and skip the questions you find difficult. After answering all of the easy questions, go back and try to answer the more difficult questions.

## Use logic in answering questions.

Try to use logic to eliminate incorrect answers to a question. Compare the answer choices to each other and note how they differ. Such differences may provide clues as to what the question requires. Eliminate as many incorrect answers as you can, then make an educated guess from the remaining answers.

## Answer every question.

Your score on the ACT WorkKeys tests will be based on the number of questions that you answer correctly, there is no penalty for guessing. Therefore, you should answer every question within the time allowed for each test, even if you have to guess. The test administrator will announce when there are five minutes remaining on each test.

## Review your work.

If there is time left after you have answered every question on a test, go back and check your work on that test. Check to be sure that you marked only one answer to each question. You will not be allowed to go back to any other test or mark answers to a test after time has been called on that test.

## Be precise in marking your answer document.

Be sure that you fill in the correct ovals on your answer document. Check to be sure that the number for the line of ovals on your answer document is the same as the number for the question you are answering. Position your answer document next to your test booklet so you can mark your answers quickly and completely.

## Erase completely.

If you want to change an answer on your answer document, be sure to erase the unintended mark completely.

## Permitted Calculators.

For a current list of calculators permitted for any ACT assessment, please visit:
http://www.actstudent.org/faq/calculator.html

## ACT WorkKeys Applied Mathematics Assessment

Applied Mathematics is skill in applying mathematical reasoning and problem-solving techniques to work-related problems. Solving mathematical problems in the workplace can differ from solving problems as a math student. While the math skills needed are the same, math problems in the workplace are not usually laid out neatly in a textbook format. Instead, the teacher may be responsible for identifying and locating the necessary information (e.g., from a supply catalog or list of student test scores) and for knowing what to do with that information. It is, therefore, critical to strengthen your core mathematics skills and to develop your problem-solving strategies. Individuals possessing these Applied Mathematics skills will be able to successfully tackle new situations involving mathematics problems in the workplace. A formula sheet that includes all formulas required for the assessment is provided. The formula sheet is available in the test booklet.

There are five levels in the Applied Mathematics skill scale, ranging from Level 3, the least complex, to Level 7, the most complex. These levels were developed based on two main criteria:

- the types of mathematical operations employees must perform, and
- the form and order in which employees receive the information; that is, the presentation of the information.

The skills at Level 3 involve using whole numbers and some decimals in basic math operations: addition, subtraction, multiplication, and division. As the levels progress, the math operations involve more steps. Furthermore, they include decimals and fractions, conversion of units, averaging, calculating area and volume, and ratios.

As the complexity of the levels increases, the presentation of the information becomes more of a barrier to problem solving. The wording becomes ambiguous, the presence of unnecessary information is more likely, and pertinent information is less obvious. Regardless of skill level, most of these problems will involve one or more of the following applications: quantity, money, time, measurement, proportions and percentages, and averages.

Many math problems found in the workplace combine two or more applications: What quantity can be produced in a specified time? What distance can be traveled in a particular time? What is the average cost in terms of money? A common combination of applications is finding the best deal, which requires employees to perform various calculations and then compare the results in terms of relative cost. Examples of typical problems are found in the ACT WorkKeys Applied Mathematics Practice Set, which begins on page 7.

## ACT WorkKeys Applied Mathematics Practice Set

This practice set can help you understand the ACT WorkKeys Applied Mathematics skill levels and give you practice for the actual ACT WorkKeys assessment. However, remember that this exercise is not a full-length test and is not a substitute for the actual ACT WorkKeys test and score. The actual test consists of 33 problems and has a time limit of 45 minutes.

The ACT WorkKeys Applied Mathematics assessment measures skill in applying mathematical reasoning to work-related problems. The test involves setting up and solving the types of problems and calculations that actually occur in the workplace and is designed to be taken with a calculator and a formula sheet, as both would be available on the job. There are five skill levels, ranging from Level 3 to Level 7. As you move from Level 3 to Level 7, the mathematics concepts and calculations become more complex.

## Applied Mathematics Formula Sheet

## Distance

1 foot = 12 inches
1 yard $=3$ feet
1 mile $=5,280$ feet
1 mile $\approx 1.61$ kilometers
1 inch $=2.54$ centimeters
1 foot $=0.3048$ meters
1 meter $=1,000$ millimeters
1 meter $=100$ centimeters
1 kilometer $=1,000$ meters
1 kilometer $\approx 0.62$ miles

## Area

1 square foot $=144$ square inches
1 square yard $=9$ square feet
1 acre $=43,560$ square feet

## Volume

1 cup = 8 fluid ounces
1 quart $=4$ cups
1 gallon $=4$ quarts
1 gallon = 231 cubic inches
1 liter $\approx 0.264$ gallons
1 cubic foot $=1,728$ cubic inches
1 cubic yard $=27$ cubic feet
1 board foot $=1$ inch by 12 inches by 12 inches

## Weight/Mass

1 ounce $\approx 28.350$ grams
1 pound $=16$ ounces
1 pound $\approx 453.592$ grams
1 milligram $=0.001$ grams
1 kilogram = 1,000 grams
1 kilogram $\approx 2.2$ pounds
1 ton $=2,000$ pounds

## Rectangle

perimeter $=2($ length + width $)$
area $=$ length $\times$ width

## Rectangular Solid (Box)

volume $=$ length $\times$ width $\times$ height

## Cube

volume $=(\text { length of side })^{3}$

## Triangle

sum of angles $=180^{\circ}$
area $=\frac{1}{2}($ base $\times$ height $)$

## Circle

number of degrees in a circle $=360^{\circ}$
circumference $\approx 3.14 \times$ diameter
area $\approx 3.14 \times(\text { radius })^{2}$

## Cylinder

volume $\approx 3.14 \times(\text { radius })^{2} \times$ height

## Cone

volume $\approx \frac{3.14 \times(\text { radius })^{2} \times \text { height }}{3}$

## Sphere (Ball)

volume $\approx \frac{4}{3} \times 3.14 \times(\text { radius })^{3}$

## Electricity

1 kilowatt-hour = 1,000 watt-hours
amps $=$ watts $\div$ volts
Temperature

$$
\begin{aligned}
& { }^{\circ} \mathrm{C}=0.56\left({ }^{\circ} \mathrm{F}-32\right) \text { or } \frac{5}{9}\left({ }^{\circ} \mathrm{F}-32\right) \\
& { }^{\circ} \mathrm{F}=1.8\left({ }^{\circ} \mathrm{C}\right)+32 \text { or } \frac{9}{5}\left({ }^{\circ} \mathrm{C}\right)+32
\end{aligned}
$$

NOTE: Problems on the ACT WorkKeys Applied Mathematics assessment should be worked using the formulas and conversions on this formula sheet.

## Applied Mathematics Level 3

Individuals with Level 3 skills can set up and solve problems with a single type of mathematical operation (addition, subtraction, multiplication, or division) on whole numbers, fractions, decimals, or percentages.

1. In your job as a cashier, a customer gives you a $\$ 20$ bill to pay for a can of coffee that costs $\$ 3.84$. How much change should you give back?
A. $\$ 15.26$
B. $\$ 16.16$
C. $\$ 16.26$
D. $\$ 16.84$
E. $\$ 17.16$
2. It took you 1 hour to unpack, price, and shelve 3 boxes of jeans at work. On the average, how many minutes did it take to unpack, price, and shelve 1 box of jeans?
A. 15
B. 20
C. 30
D. 40
E. 60
3. You operate a chop saw like the one shown in the diagram below. For your last cut, you had the saw angled $25^{\circ}$ to the left. Now you need to increase the angle by $30^{\circ}$ to the right. To what angle will you set the saw?

A. $5^{\circ}$ to the left
B. $0^{\circ}$
C. $5^{\circ}$ to the right
D. $25^{\circ}$ to the right
E. $30^{\circ}$ to the right

## Applied Mathematics Level 4

Individuals with Level 4 skills can set up and solve problems with one or two different mathematical operations (addition, subtraction, multiplication, or division) on whole numbers, fractions, decimals, or percentages.

1. The discount store where you work is selling a video game for $15 \%$ off the regular price of $\$ 21.00$. What is the sale price of the game?
A. $\$ 3.15$
B. $\$ 16.80$
C. $\$ 17.85$
D. $\$ 18.90$
E. $\$ 24.15$
2. You need about $11 / 2$ hours to set up a computer workstation. At this rate, how many hours should it take you to set up 7 of these workstations?
A. $4^{2 / 3}$
B. $81 / 2$
C. 10
D. $10 \frac{1}{2} 2$
E. $11^{2} / 3$
3. You are balancing the checking account for your lawn-care business. Based on the check register below, how much money is in the account?

| Check <br> number | Date | Memo | Check <br> amount | Deposit <br> amount | Balance |
| :---: | :---: | :--- | ---: | :--- | :--- |
|  | $7 / 1$ | Deposit |  | $\$ 581.22$ | $\$$ |
| 101 | $7 / 3$ | Rake \& axe | $\$ 27.91$ |  | $\$$ |
| 102 | $7 / 5$ | Van repair | $\$ 52.81$ |  | $\$$ |
| 103 | $7 / 5$ | New mower | $\$ 265.80$ |  | . |
| 104 | $7 / 6$ | Gas | $\$ 10.00$ |  | . |
|  | $7 / 31$ | Deposit |  | $\$ 330.67$ | $\$$ |

A. $\$ 330.67$
B. $\$ 356.52$
C. $\$ 555.37$
D. $\$ 581.22$
E. $\$ 911.89$

## Applied Mathematics Level 5

Individuals with Level 5 skills can set up and solve problems with several steps of logic and calculations on a mixture of whole numbers, fractions, decimals, or percentages, when the information is presented in a logical order.

1. Quik Call charges $18 \mathbb{\$}$ per minute for long-distance calls. Econo Phone totals your phone usage each month and rounds the number of minutes up to the nearest 15 minutes. It then charges $\$ 7.90$ per hour of phone usage, dividing this into 15 -minute segments if you use less than a full hour. If your office makes 5 hours 3 minutes worth of calls this month using the company with the lower price, how much will these calls cost?
A. $\$ 39.50$
B. $\$ 41.48$
C. $\$ 41.87$
D. $\$ 54.00$
E. $\$ 54.54$
2. The drugstore where you work marks up the price of batteries by $35 \%$. You must price some batteries that cost the store $\$ 1.80$ per package. What price should you put on each package?
A. $\$ 0.63$
B. $\$ 2.15$
C. $\$ 2.43$
D. $\$ 2.77$
E. $\$ 3.50$
3. In your job at the kennel, you groom dogs. It takes you 1 hour 15 minutes to groom an average sized dog. Large dogs, however, take 1 hour 45 minutes to groom. Today you have to groom 3 average-sized dogs and 2 large dogs. How much time should it take you to groom all 5 dogs?
A. 3 hours
B. 3 hours 45 minutes
C. 6 hours 15 minutes
D. 7 hours 15 minutes
E. 7 hours 45 minutes

## Applied Mathematics Level 6

Individuals with Level 6 skills can set up and solve problems containing unnecessary information or information presented out of logical order and involving multiple-step calculations on a mixture of whole numbers, fractions, decimals, or percentages.

1. You are preparing to tile the floor of a rectangular room that is $15 \frac{1}{2}$ feet by $18 \frac{1}{2}$ feet in size. The tiles you plan to use are square, measure 12 inches on each side, and are sold in boxes that contain enough tiles to cover 25 square feet. How many boxes of tiles should you order to complete the job?
A. 11
B. 12
C. 34
D. 59
E. 287
2. The production line where you work can assemble 5 amplifiers every 30 minutes. At this rate, how long should it take the line to assemble 125 amplifiers?
A. 4 hours 10 minutes
B. $\quad 12$ hours 30 minutes
C. 12 hours 50 minutes
D. 20 hours 50 minutes
E. 25 hours
3. The map below shows the location of 3 houses where you had to do lawn work today. Your truck gets 8 miles per gallon of gasoline, so you chose the shortest route from your house to the jobs and then back home, as shown below. If gas costs $\$ 1.52$ per gallon, what was the total cost of the gas that you used today?

A. $\$ 2.50$
B. $\$ 3.42$
C. $\$ 3.80$
D. $\$ 6.20$
E. $\$ 7.50$

## Applied Mathematics Level 7

Individuals with Level 7 skills can set up and solve complex problems requiring extensive calculations and several conversions between systems of measurement. They can calculate percent change, set up and manipulate complex ratios and proportions, find multiple areas or volumes of two- and threedimensional shapes, find the best economic value of several alternatives, and locate errors in multiplestep calculations.

1. You operate a machine that stamps bottle caps out of 2-inch-by-2-inch aluminum squares. Occasionally, the machine produces an unusable cap, a reject, that must be recycled. The number of rejects made at different production rates is shown below. Today you have been told to produce 600 caps per hour. Approximately how many caps total should you have to produce to end up with your quota of 2,400 good ones?

A. 2,400
B. 2,448
C. 2,522
D. 2,548
E. 2,616
2. In your job at a company that makes bowling balls, you are doing a quick check of how much plastic resin has been used this week by the machine that molds the balls. Each ball is a sphere with a radius of 4 inches (the finger holes are drilled out after the ball has been molded). Production records show that 1,200 balls were made this week. Ignoring waste, about how many cubic feet of resin were used in the machine this week?
A. $\quad 47$
B. $\quad 186$
C. 268
D. 2,233
E. 321,536
3. The farm where you just started working has a vertical cylindrical oil tank that is 2.5 feet across on the inside. The depth of the oil in the tank is 2 feet. If 1 cubic foot of space holds 7.48 gallons, about how many gallons of oil are left in the tank?
A. 37
B. 59
C. 73
D. 230
E. 294

## Answers to Applied Mathematics Practice Set

## Answers to Applied Mathematics Level 3 Practice Set

Answer to Level 3 Sample Item 1:
This problem involves subtracting the cost of the bill from the amount the customer gives you.
A. Incorrect: $\$ 20.00-\$ 4.74=\$ 15.26$
B. Correct: $\$ 20.00-\$ 3.84=\$ 16.16$
C. Incorrect: $\$ 20.00-\$ 3.74=\$ 16.26$
D. Incorrect: $\$ 20.00-\$ 3.16=\$ 16.84$
E. Incorrect: $\$ 20.00-\$ 2.84=\$ 17.16$

Answer to Level 3 Sample Item 2:
First, change 1 hour to 60 minutes. Then divide 60 minutes by 3 boxes to get the minutes per box.
A. Incorrect: $1 \mathrm{hr}=60 \mathrm{~min} ; 60 \mathrm{~min} \div 4$ boxes $=15 \mathrm{~min} / \mathrm{box}$
B. Correct: $1 \mathrm{hr}=60 \mathrm{~min} ; 60 \mathrm{~min} \div 3$ boxes $=20 \mathrm{~min} / \mathrm{box}$
C. Incorrect: $1 \mathrm{hr}=60 \mathrm{~min} ; 60 \mathrm{~min} \div 2$ boxes $=30 \mathrm{~min} / \mathrm{box}$
D. Incorrect: $1 \mathrm{hr}=60 \mathrm{~min} ; 60 \div 3 \times 2=40 \mathrm{~min} / \mathrm{box}$ ( 2 boxes)
E. Incorrect: $1 \mathrm{hr}=60 \mathrm{~min}$

Answer to Level 3 Sample Item 3:
First, recognize that " $25^{\circ}$ to the left" means $-25^{\circ}$. Then, to increase the angle, add $30^{\circ}$ to $-25^{\circ}$ to obtain the correct answer of $5^{\circ}$.
A. Incorrect: $\left(25^{\circ}-30^{\circ}\right)=-5^{\circ} \rightarrow 5^{\circ}$ to the left
B. Incorrect: The saw is angled at $0^{\circ}$ in the diagram.
C. Correct: $\left(-25^{\circ}+30^{\circ}\right)=5^{\circ} \rightarrow 5^{\circ}$ to the right
D. Incorrect: The opposite of the angle of the saw $\rightarrow 25^{\circ}$ to the right
E. Incorrect: $30^{\circ}$ added to the $0^{\circ}$ position shown in the diagram $\rightarrow 30^{\circ}$ to the right

## Answers to Applied Mathematics Level 4 Practice Set

Answer to Level 4 Sample Item 1:
First, subtract $15 \%$ from $100 \%$ and then multiply the result, $85 \%$, by the price of $\$ 21.00$. Another common method of solving this problem is to calculate $15 \%$ of $\$ 21.00$ (\$3.15) and subtract this from the price of $\$ 21.00$.
A. Incorrect: $\$ 21 \times 0.15=\$ 3.15$ : this is the discount amount
B. Incorrect: $\$ 21 \times 0.20=\$ 4.20 ; \$ 21-\$ 4.20=\$ 16.80$ : $20 \%$ discount
C. Correct: $\$ 21 \times 0.85=\$ 17.85$ or $\$ 21 \times 0.15=\$ 3.15$; $\$ 21-\$ 3.15=\$ 17.85$
D. Incorrect: $\$ 21-(0.10 \times \$ 21)=\$ 18.90$ : $10 \%$ discount
E. Incorrect: $\$ 21+(0.15 \times \$ 21)=\$ 24.15$ : Added discount to regular price

## Answer to Level 4 Sample Item 2:

First, convert $11 / 2$ to 1.5 and multiply this by the number of workstations. Next, recognize that the answers are in fraction form and equate 10.5 to $101 / 2$.
A. Incorrect: $11 / 2 \rightarrow 1.5 ; 7 \div 1.5=4.66 ; 4.66 \rightarrow 42 / 3$
B. Incorrect: $11 / 2 \rightarrow 1.5 ; 7+1.5=8.5 ; 8.5 \rightarrow 81 / 2$
C. Incorrect: $1 \frac{112}{2} \rightarrow 3 / 2 ; 7+3=10$
D. Correct: $11 / 2 \rightarrow 1.5 ; 7 \times 1.5=10.5 ; 10.5 \rightarrow 101 / 2$
E. Incorrect: $11 / 2 \rightarrow 3 / 2 ; 2 / 3 \times 7=42 / 3 ; 7+42 / 3=112 / 3$

Answer to Level 4 Sample Item 3:
To answer this question, add the deposit amounts and subtract the check amounts.
A. Incorrect: \$330.67: Last deposit into the account
B. Incorrect: $(27.91+52.81+265.80+10.00)=\$ 356.52$ : Total amount of checks
C. Correct: $581.22+330.67-(27.91+52.81+265.80+10.00)=\$ 555.37$
D. Incorrect: \$581.22: First deposit into the account
E. Incorrect: $(581.22+330.67)=\$ 911.89$ : Total amount of deposits

## Answers to Applied Mathematics Level 5 Practice Set

## Answer to Level 5 Sample Item 1:

To calculate Quik Call's charge, convert 5 hours 3 minutes to minutes ( $60 \times 5=300 ; 300+3=303$ minutes) and then multiply this by the rate of 18 C per minute, which equals $\$ 54.54$. To calculate Econo Phone's charge, round 5 hours 3 minutes up to 5 hours 15 minutes and then convert the 15 minutes to $1 / 4$ or 0.25 hours. This value of 5.25 hours is multiplied by the rate of $\$ 7.90$ per hour to obtain $\$ 41.48$. Compare the two costs, $\$ 54.54$ and $\$ 41.48$, and choose the lower cost, $\$ 41.48$.
A. Incorrect: $5 \mathrm{hr} \times \$ 7.90 / \mathrm{hr}=\$ 39.50$ (Econo Phone's rate with time rounded down to 5 hours)
B. Correct: $5.25 \mathrm{hr} \times \$ 7.90 / \mathrm{hr}=\$ 41.48$ (Econo Phone's correctly calculated charge)
C. Incorrect: $5.3 \mathrm{hr} \times \$ 7.90 / \mathrm{hr}=\$ 41.87$
D. Incorrect: $5 \mathrm{hr} \times 60 \mathrm{~min} / \mathrm{hr} \times 18 \$ / \mathrm{min}=\$ 54.00$
E. Incorrect: $(5 \mathrm{hr} \times 60 \mathrm{~min} / \mathrm{hr})=300 \mathrm{~min} ; 300 \mathrm{~min}+3 \mathrm{~min}=303 \mathrm{mins} \times 18 \mathrm{q} / \mathrm{min}=\$ 54.54$ (Quick Call's charge correctly calculated but not the lower cost.)

## Answer to Level 5 Sample Item 2:

First, recognize that "mark up" means to increase the price. Next, add the mark-up percentage (35\%) to the original percentage (100\%) and multiply the sum (135\%) by the original price of $\$ 1.80$. Another common method of solving this problem is to calculate $35 \%$ of $\$ 1.80$ ( $\$ 0.63$ ) and add this to the original price of $\$ 1.80$ (\$2.43)
A. Incorrect: $1.80 \times 0.35=\$ 0.63$
B. Incorrect: $1.80+0.35=\$ 2.15$
C. Correct: $1.80 \times 1.35=\$ 2.43$ or $1.80 \times 0.35=\$ 0.63, \$ 1.80+0.63=\$ 2.43$
D. Incorrect: $1.80 \div 0.65=\$ 2.77$
E. Incorrect: Changed $35 \%$ to $\$ 3.50$

## Answer to Level 5 Sample Item 3:

First, multiply the time required to groom an average-sized dog ( 1 hr 15 min ) by the number of averagesized dogs to groom (3). Then, multiply the time required to groom a large dog ( 1 hr 45 min ) by the number of large dogs (2). Finally add the two times together.
A. Incorrect: $1 \mathrm{hr} 15 \mathrm{~min}+1 \mathrm{hr} 45 \mathrm{~min}=3 \mathrm{hrs}$
B. Incorrect: $3 \mathrm{x} 1 \mathrm{hr} 15 \mathrm{~min}=3 \mathrm{hr} 45 \mathrm{~min}$
C. Incorrect: $5 \mathrm{x} 1 \mathrm{hr} 15 \mathrm{~min}=6 \mathrm{hr} 15 \mathrm{~min}$
D. Correct: $(1 \mathrm{hr} 15 \min \mathrm{x} 3)+(1 \mathrm{hr} 45 \min \mathrm{x} 2)=7 \mathrm{hr} 15 \mathrm{~min}$
E. Incorrect: $(1 \mathrm{hr} 15 \mathrm{~min} \mathrm{x} 2)+(1 \mathrm{hr} 45 \mathrm{~min} \mathrm{x} 3)=7 \mathrm{hr} 45 \mathrm{~min}$

## Answers to Applied Mathematics Level 6 Practice Set

## Answer to Level 6 Sample Item 1:

First, convert $15 \frac{1}{2}$ to 15.5 and $18 \frac{1}{2}$ to 18.5 and multiply these two values to obtain the area of the room in square feet. Next, divide this number (286.75) by the area covered by one box of tiles ( $25 \mathrm{sq} . \mathrm{ft}$.). Finally, round 11.47 boxes up to 12 boxes, as it is not possible to buy a fraction of a box of tiles.
A. Incorrect: $15 \frac{1}{2} \rightarrow 15.5$ and $18 \frac{1}{2} \rightarrow 18.5 ; 15.5 \times 18.5=286.75 \mathrm{sq} \mathrm{ft} ; 286.75 \mathrm{sq} \mathrm{ft} \div 25=11.47 \rightarrow$ rounded down to11 boxes
B. Correct: $15 \frac{1}{2} \rightarrow 15.5$ and $18 \frac{1}{2} \rightarrow 18.5 ; 15.5 \times 18.5=286.75 \mathrm{sq} \mathrm{ft} ; 286.75 \mathrm{sq} \mathrm{ft} \div 25=11.47 \rightarrow$ 12 boxes
C. Incorrect: $15.5+18.5=34$ : Added the room dimensions
D. Incorrect: $15.5+18.5+25=59$ : Added all the dimensions given in feet
E. Incorrect: $15.5 \times 18.5=286.75$ rounded up to 287 : the area of the room in square feet

## Answer to Level 6 Sample Item 2:

First, calculate the time required to build one amplifier. Then, multiply this by the number of units to be built and convert this value to hours and minutes.
A. Incorrect: $125 \div 30=4.17$; convert to hours and minutes $\rightarrow 4 \mathrm{hr} 10 \mathrm{~min}$
B. Correct: $30 \div 5=6 \mathrm{~min} / \mathrm{amp} ; 6 \times 125=750 \mathrm{~min} \rightarrow 12.5 \mathrm{hr} \rightarrow 12 \mathrm{hr} 30 \mathrm{~min}$
C. Incorrect: $30 \div 5=6 \mathrm{~min} / \mathrm{amp} ; 6 \times 125=750 \mathrm{~min} \rightarrow 12.5 \mathrm{hr} \rightarrow 12.50$ hours interpreted as 12 hr 50 min
D. Incorrect: $5 \times 125=625 ; 625 \div 30=20.83 \mathrm{hr} \rightarrow 20 \mathrm{hr} 50 \mathrm{~min}$
E. Incorrect: $125 \div 5=25 \mathrm{hr}$

## Answer to Level 6 Sample Item 3:

First, calculate the total number of miles driven (20), divide this number by the gas mileage of the truck (20 miles $\div 8$ miles/gallon), and finally, multiply this number by the cost per gallon ( $2.50 \times \$ 1.52$ ).
A. Incorrect: $(6+4+3+7)$ miles $=20$ miles; 20 miles $\div 8$ miles/gallon $=\$ 2.50$
B. Incorrect: $(8+3+3+4)$ miles $=18$ miles; 18 miles $\div 8$ miles/gallon $\times \$ 1.52 /$ gallon $=\$ 3.42$
C. Correct: $(6+4+3+7)$ miles $=20$ miles; 20 miles $\div 8$ miles/gallon $=2.5$ gallons; 2.5 gallons $\times$ $\$ 1.52 /$ gallon $=\$ 3.80$
D. Incorrect: $10-3.80=\$ 6.20$
E. Incorrect: $10-2.50=\$ 7.50$

## Answers to Applied Mathematics Level 7 Practice Set

## Answer to Level 7 Sample Item 1:

First, read the number of rejects for the production rate off the graph ( 24 rejects/500 caps) and use this value to find the number of good caps per 500 caps made ( 476 good). The solution given below involves inserting this value into a proportion and solving for $x$.
A. Incorrect: 2,400 - the number of good caps
B. Incorrect: 12 bad/ 300 made; $2,400 \div 600=4 ; 4 \times 12$ bad $=48$ bad; 2,400 good +48 bad $=$ 2,448 caps
C. Correct: $24 \mathrm{bad} / 500$ made; 500-24 $=476$ good/500 made; $\frac{476}{500}=\frac{2400}{x} ; x=2,521.01 \rightarrow 2,522$ caps
D. Incorrect: $29 \mathrm{bad} / 500$ made; $500-29=471$ good/500 made; $\frac{471}{500}=\frac{2400}{x} ; x=2,547.7 \rightarrow 2,548$ caps
E. Incorrect: 49.5 bad/600 made; 600-49.5 = 550.5 good/600 made; $\frac{550.5}{600}=\frac{2400}{x} ; x=2615.8 \rightarrow$ 2616 caps

## Answer to Level 7 Sample Item 2:

First, use $\frac{4}{3}$ (3.14)(radius) ${ }^{3}$ to calculate the volume (in cubic inches) of one ball (with radius $=4$ inches). This value will be 267.947 cubic inches. Next, multiply this value by the number produced: $267.947 \times$ $1,200=321,536 \mathrm{cu}$ in. Finally, divide this value by the number of cubic inches per cubic foot to get the answer: $321,536 \div 1,728 \approx 186$ cubic feet of resin used.
A. Incorrect: $\frac{4}{3} \pi r^{2}=67 \mathrm{cu} \mathrm{in} /$ ball; $67 \times 1,200=80,400 \div 1,728=46.52 \mathrm{cu} \mathrm{ft} \rightarrow 47 \mathrm{cu} \mathrm{ft}$
B. Correct: $\frac{4}{3} \mathrm{mr}^{3}=\frac{4}{3}(3.14)(4 \mathrm{in})^{3}=267.947 \mathrm{cu} \mathrm{in} /$ ball; 267.947 cu in $\times 1,200=321,536 \mathrm{cu} \mathrm{in}$; 321,536 cu in $\div 1,728 \mathrm{cu} \mathrm{in} / \mathrm{cu} \mathrm{ft}=186.08 \mathrm{cu} \mathrm{ft}$, rounded down to 186
C. Incorrect: $\frac{4}{3}{\pi r^{3}}^{3}=\frac{4}{3}(3.14)(4 \mathrm{in})^{3}=267.947 \mathrm{cu}$ in/ball $\rightarrow 268$
D. Incorrect: $\frac{4}{3} \mathrm{mr}^{3}=\frac{4}{3}(3.14)(4 \mathrm{in})^{3}=267.947 \mathrm{cu} \mathrm{in} / \mathrm{ball} ; 267.947 \mathrm{cu}$ in $\times 1,200=321,536 \mathrm{cu} \mathrm{in}$; 321,536 cu in $\div 144=2,233$ : used 144 for the number of cubic inches per cubic foot
E. Incorrect: $\frac{4}{3} \pi r^{3}=\frac{4}{3}(3.14)(4 \mathrm{in})^{3}=267.947 \mathrm{cu}$ in/ball; $267.947 \mathrm{cu} \mathrm{in} \times 1,200=321,536 \mathrm{cu}$ in: used the number of cubic inches instead of cubic feet

## Answer to Level 7 Sample Item 3:

First, look up the formula for the volume of a cylinder ( $\pi r^{2} h$ ). Next, divide the diameter ( 2.5 ft ) by 2 to find the radius ( 1.25 ft ) and calculate the volume of the cylinder ( 9.81 cu ft ). Finally, the volume must be multiplied by 7.48 , the number of gallons per cubic foot, to find the number of gallons remaining in the tank (73 gallons).
A. Incorrect: Multiplied $2.5 \times 2 \times 7.48=37.4$, then rounded to 37
B. Incorrect: Forgot to square $1.25 ; 3.14 \times 1.25 \times 2 \times 7.48=58.72$, rounded up to 59
C. Correct: $2.5 \div 2=1.25 ; 3.14 \times(1.25)^{2} \times 2=9.81 \mathrm{cu} \mathrm{ft} ; 9.81 \mathrm{cu} \mathrm{ft} \times 7.48 \mathrm{gal} / \mathrm{cu} \mathrm{ft}=73.4$ gallons: round down to 73
D. Incorrect: $(1.25 \times 3.14)^{2} \times 2 \times 7.48=230.47$, rounded down to 230
E. Incorrect: $3.14 \times(2.5)^{2} \times 2 \times 7.48 \mathrm{gal} / \mathrm{cu} \mathrm{ft}=293.59$ gallons, rounded up to 294: used diameter ${ }^{2}$ instead of the radius, then rounded up

## ACT WorkKeys Reading for Information Assessment

Reading for Information is skill in reading and understanding work-related instructions and policies. Such material, known as procedural text, differs from the explanatory and narrative text on which most reading programs are based. In addition, unlike reading and content-area texts, which are usually organized to make the reading easy to understand, workplace communication is not necessarily designed to be easy to read. It may even be poorly or unclearly written. These differences can be drawbacks for many teachers when reading and understanding much of the material they encounter on the job. There are five levels in the Reading for Information skill scale, and the skills included can be loosely grouped into four categories:

## Choosing Main Ideas or Details

Looking for main ideas and details is a common reading task. But, as mentioned previously, reading texts encountered on the job differ from the selections most often used in reading programs. In such programs, the main idea is generally found in the topic sentence at the beginning of a paragraph or occasionally in a concluding sentence. However, written communication used on the job is often not constructed in such an organized manner. Consequently, the teacher needs to be able to use clues other than placement to identify the main ideas and important details.

## Understanding Word Meanings

Although some basic vocabulary is involved in this skill area, the emphasis is on using context to determine specific word meanings. The demands of the workplace progress from the need to know simple words and identify definitions clearly stated in the reading to the need to use the context to determine the meanings of more difficult words. Jargon, technical terminology, and words with multiple meanings are used increasingly as the contexts become more complex.

## Applying Instructions

Conveying instructions is the principal purpose of a great deal of workplace communication. Applying instructions often involves sequencing and generalizing. As the levels become more complex, the instructions contain more steps and conditionals are added. At Level 3, teachers need only to apply instructions to clearly described situations; at the more complex levels, teachers must apply instructions to less similar, and eventually, to new situations.

## Applying Information and Reasoning

Often, for effective performance of a task, it is necessary for employees to apply information given in workplace communications to similar or new situations, to predict consequences of certain actions, and to understand the reasoning, which may or may not be stated, behind a policy. As in the previous category, teachers may be asked to apply information and reasoning to clearly described situations at Level 3 and Level 4 while, at the more complex levels, they must apply information and reasoning to similar and then to new situations.

The practice set gives examples of the reading materials and questions on the ACT WorkKeys Reading for Information test.

## ACT WorkKeys Reading for Information Practice Set

This practice set can help you understand the ACT WorkKeys skill levels and give you practice for the actual ACT WorkKeys assessment. However, remember that this exercise is not a full-length test and is not a substitute for the actual ACT WorkKeys test and score.

The actual test consists of 33 questions and has a time limit of 45 minutes. Several questions may be grouped together and relate to a single piece of reading material.

ACT WorkKeys Reading for Information is skill in reading and understanding written material on the job. Some of the materials are memos, bulletins, letters, policy manuals, and regulations. The materials may not always be clearly or well written. 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.

## Reading for Information Level 3

Individuals with Level 3 skills understand basic words and can identify main ideas. They understand when to follow each step in a set of instructions and can apply the instructions to situations described in the materials. Level 3 materials include listed instructions, simple company policies, and simple announcements. They are short and straightforward, and contain basic vocabulary.

Find the place where the first tree seedling is to be planted. Hold the planting bar straight up with both hands on the handle.

Put the bottom edge of the bar against the ground. Then put your foot on the crossbar. Dig a hole by pushing down hard with your foot until the crossbar is touching the ground.

Move the bottom of the bar back and forth two or three times to make the hole a little bigger. Take the bar out of the hole and lay it on the ground beside the hole while you plant the seedling.

1. How must you hold the planting bar to dig a hole?
A. Across your foot
B. Beside the hole
C. Near the bottom edge
D. Straight up
E. Very hard

How to treat small cuts and scrapes
First, wash the wound with soap and warm water. Use a soft wet cloth to do the cleaning and touch the injured area very carefully. Try not to cause pain to the injured person.

Then, put AB Ointment on the wound. Squeeze a small dot of ointment out of the tube directly onto the injured area. Use a dry soft cloth to spread the ointment evenly over the entire wound. Again, touch the injured area very carefully and try not to cause pain.

Next, cover the injured area with a bandage. Place a soft white cotton pad directly on the wound. Tape the pad in place. Put one piece of tape along each side of the pad. The tape should stick to the pad and also to the skin outside the injured area. Finally, put two pieces of tape all the way across the pad. Stick the tape to the skin on each side of the pad.
2. According to the instructions shown, what should you use to clean the wound?
A. AB ointment
B. A soft dry cloth
C. A soft wet cloth
D. A white cotton pad
E. Wound cleaner

## MEMO

To: All businesses in Logan City Mall
From: Philip Charles, Logan City Mall Manager
Re: New garbage collection rules
Logan City Mall has hired a new garbage collection company. Speedy
Sanitation, Inc. will be collecting garbage from all businesses
starting next Monday. Collection days will not change. The pick-up
time will be one hour later.
Each business will be given one blue garbage can to use. Each business
may ask for 2 extra garbage cans. You may have a total of 3 garbage
cans. You will not need yellow collection tags anymore. Full garbage
cans must weigh less than 30 pounds. Put your garbage in bags before
putting it in the garbage cans. Put your garbage cans in the alley
behind your business's back door.
3. Based on the memo shown, starting next Monday, what is the greatest number of garbage cans each business will be allowed to have?
A. 1
B. 2
C. 3
D. 15
E. 30

## Reading for Information Level 4

Individuals with Level 4 skills can apply instructions to situations specifically described in the reading materials. They can identify cause-effect relationships and define words by the context. Level 4 materials may include several details or describe processes involving several steps.

## Sunth Titherty Mithrarg

MEMO: from the Director

## SUBJECT: Book Shelving

Books that have been returned to the library must be sorted before they are put back on the shelves. Three carts are normally used to sort books.

First, look at the sticker on the back edge of the book. Books with a blue dot above the sticker go on one cart. These are new books and they will be put on special shelves at the front of the library. If books do not have a blue dot, put them on the other two carts.

Next, the books on each cart must be sorted by the code on the sticker. Codes always start with a letter of the alphabet and most books have two letters of the alphabet. Put all the books in alphabetical order according to their codes. When you have more than one book with the same first alphabet letter, put them in order according to the second alphabet letter in the code. For example, put all the books that have the first alphabet letter P on the sticker together on one cart. Then, put the books with the letters PN before the books with the letters PV.

Often you will have several books with the same alphabet letters. When that happens, the books must next be sorted by code number which is on the sticker just below the alphabet letters. For example, a book with the code PN 103 must be put before a book with the code PN 225.

When all the books on the carts are sorted, you can start putting them in the appropriate places on the shelves.

1. According to the memo, where should you put a book with the code RC 405 ?
A. After a book coded RA 410
B. After a book coded RC 410
C. Before a book coded RA 310
D. Before a book coded RC 310
E. On the special "new book" shelves

## Leaner Dry Cleaners

When a customer comes in with clothes to be cleaned, follow these steps:

1. Pick up each piece of clothing and look at it to see what type of clothing it is (for example, a sweater).
2. Write down on the order form in the correct space how many of each type of clothing the customer has brought in (for example, 1 sweater, 2 shirts).
3. Ask the customer if there are any stains on the clothing. If the customer says "yes," ask what kind of stain it is and where it is located. Put this information on the order form and also put a red sticky dot on the stain area on the clothing. (Red sticky dots are under the countertop, next to the order forms.) If the customer doesn't know what kind of stain it is, put a red sticky dot on the area and write "unknown stain" on the order form.
4. Put the clothes to be cleaned in the bags behind the counter.
5. Ask for the customer's name and phone number and write both on the order form.
6. Check the schedule sheet on the counter next to the telephone and tell the customer when the cleaned clothes will be ready to pick up. Check the box next to that day on the bottom of the order form, tear off the bottom of the form, and give it to the customer.
7. What should you do next if the customer says there are no stains on the clothes?
A. Check the clothes for stains.
B. Put a red sticky dot on the clothes.
C. Put the clothes in the cleaning bags.
D. Write the customer's name on the order form.
E. Write "unknown stains" on the order form.

## Greenfield Memorial Hospital



During and after a snowstorm, there will be both route and schedule changes for the hospital employee bus. The bus will run 15 minutes early, so be at your stop early. The bus will not stop at Bellevue Square or the Stadium. Employees usually boarding at those places will be picked up at the Eastdale Mall stop. Olive Street will be closed, so people usually picked up at that stop must walk to the Spring Street stop. If your stop is on a hillside, wait at the city bus stop closest to the top of the hill, so that the driver can stop safely. At stops where the snow has been piled deep at the curb, be prepared to board out in the street. Ice storms may cause the shuttle service to be canceled for a period of time. Listen to your local radio station after an ice storm. Any cancellations will be announced regularly.
3. Bellevue Square is your usual stop. According to the instructions shown, after a snowstorm, you should go to which stop?
A. Bellevue Square
B. Eastdale Mall
C. Olive Street
D. Spring Street
E. The Stadium

## Reading for Information Level 5

Individuals with Level 5 skills can apply information from reading materials to situations that are similar to those described in the materials. They can correctly understand written materials containing a moderate amount of detail about a topic, such as a memo describing a company's benefit package, directions for new office procedures, or instructions for estimating prices. They can take several considerations into account in order to choose the correct actions. Level 5 materials include moderately detailed and complicated company policies, procedures, and announcements. They may contain specialized words and phrases (jargon or technical language) and words with multiple meanings.

Goldberg's Auto Parts is served by more than fifty different accounts, each with its own sales representative, company name, corporate address, and shipping address. As a shipping and receiving clerk at Goldberg's, you are required to return defective merchandise to the manufacturer.

Standard procedure for returning an item begins with your written request to the company for authorization. Always send the request to the corporate address, not to the shipping address. Unless the company file folder contains a form for this procedure, write a business letter to the manufacturer supplying the item's stock number, cost, and invoice number; the date it was received; and the reason for its return. The manufacturer's reply will include an authorization number from the sales representative, a sticker for you to place on the outside of the box to identify it as an authorized return, and a closing date for the company's acceptance of the returned item. If you do not attach the provided sticker, your returned box will be refused by the manufacturer as unauthorized, and you will need to obtain a new letter, authorization, sticker, and closing date. Always send a returned box to the shipping address, not to the company's corporate address.

1. According to the policy shown, what should you do if you lose the authorization sticker?
A. Send a request for a return authorization along with the rejected part directly to the manufacturer's shipping address.
B. Send a request for return authorization along with the rejected part directly to the manufacturer's corporate address.
C. Repeat the standard procedure to obtain a new letter, authorization, sticker, and closing date.
D. Use a sticker from another company's folder.
E. Send the rejected part to your sales representative.

## Re: ALVAH Conference Exhibits

Dear Ms. Murphy:
Thank you for agreeing to participate as an exhibitor at the ALVAH conference scheduled for October 5-8. The Conference will be held at the Burr Hotel, 114 West Hamilton Avenue, in Madison.

The exhibit area will be set up in the Promenade, which is the foyer area for the meeting rooms on the main floor and connects to the lobby area. This area is not a secure area and exhibitors will be required to remove any electronic equipment or other valuables from their booth each night and further be sure that their booth is staffed during conference hours.

Each exhibit booth will contain an eight-foot skirted table with pipe and draping, two chairs, signage and standard electrical access. The draping for this area will be Courthouse Rose. If you need additional items, please complete the attached hotel request form and return it directly to Hurdley Hanlin at the Burr Hotel.

The exhibit set-up time will be between 12 Noon and 1:30 PM. The exhibit area will be open at 2:00 PM on Sunday and close by 6:00 PM. This end time may change based on the security requirements surrounding the President's address at dinner. The exhibit area on Monday and Tuesday will open at 8:30 AM and close by 5:00 PM. The area on Wednesday will open at 8:00 AM and close by 10:00 AM. Teardown of exhibit booths will take place between 10:00 AM and 11:15 AM.
2. You must schedule staff members to tend your booth. Based on the memo shown, what is the minimum time you need to cover?
A. One full day and two part days
B. One full day, one morning, and depending on security issues, one afternoon
C. Two full days
D. Two full days and two part days
E. Two full days, one morning, and depending on security issues, one afternoon

## FROM: Business and Finance Department

RE: Car rental during a business trip
TCA will not reimburse employees for the cost of additional insurance options offered by a car rental agency. In this regard, employees operating a rental car for TCA business purposes are provided the following insurance protections:

- As part of the basic rental fee, rental agencies generally do not hold the renter responsible for loss of or damage to the car resulting from accidental fire or acts of nature as long as the employee is not in violation of the agreement at the time of the incident.
- Collision damage to the rental car not covered above (collision, rollover, theft, or vandalism) is reimbursed by TCA independent of the rental agency.
- Liability to third parties as follows:
- First, car rental agencies will usually provide a limited amount of liability protection as part of the basic rental fee.
- Second, liability protection is provided by personal automobile insurance coverage. In the unlikely event that an employee does not have a current policy in force, that employee must purchase basic coverage at his/her own expense.
- Third, if the liability limits of personal coverage are exceeded, or, if the employee's personal insurance does not cover rentals for business purposes, TCA will provide additional protection for the employee up to the limits of TCA's own liability insurance policy.

If a car is rented for a combination of personal and business purposes, TCA will not reimburse for the cost of personal use, nor will its collision or excess liability protection be available in case of an accident while the rented car is in use for personal purposes.
3. You are traveling on TCA business and are visiting nearby relatives when a hailstorm strikes and damages your rental car. According to the memo, who will most likely pay the damages?
A. TCA
B. TCA's liability insurance
C. The rental agency
D. You will have to pay out of your own pocket
E. Your personal insurance

## Reading for Information Level 6

Individuals with Level 6 skills can read and understand complex documents and generalize from the materials to new situations. They can correctly apply complex instructions from these materials and understand the rationale behind policies and procedures described in the materials. Level 6 materials may include complex regulatory and legal documents, and rental agreements, and the information in them may not be clearly stated.

## Section 113.18

A lawful fence shall consist of:

1) Three rails of good substantial material fastened in or to good substantial posts not more than ten feet apart.
OR
2) Three boards not less than six inches wide and threequarters of an inch thick, fastened in or to good substantial posts not more than eight feet apart. OR
3) Three wires, barbed, with not less than thirty-six iron barbs of two points each on each rod of wire; or four wires, two thus barbed and two smooth. The wires are to be firmly fastened to posts not more than two rods apart, with not less than two stays between posts, or with posts not more than one rod apart without such stays, the top wire to be not more than fifty-four or less than forty-eight inches in height. The bottom wire should be not less than twelve or more than eighteen inches above the ground. The middle wire should be not less than twelve or more than eighteen inches above the bottom wire.
OR
4) Wire either wholly or in part substantially built and kept in good repair, the lowest or bottom rail, wire, or board to be not more than twenty or less than sixteen inches from the ground, the top rail, wire, or board, between forty-eight and fifty-four inches in height; and the middle rail, wire, or board, not less than twelve or more than eighteen inches above the bottom rail, wire, or board.
1. A farmer's fence has three barbed wires attached to posts spaced two rods apart with two stays between posts. The top wire is forty-nine inches in height. The bottom wire is ten inches above the ground. Based on the regulation shown, why is the fence NOT lawful under Section 113.18?
A. The fence must have four wires, two smooth and two barbed.
B. The fence posts should be spaced closer together.
C. The top wire should be higher.
D. There should be more stays.
E. The bottom wire should be higher.

## 5. STAFF CONCLUSIONS

### 5.1 SIGNIFICANT ENVIRONMENTAL IMPACTS

Below are listed those impacts that the staff judges could be of sufficient magnitude to be considered significant if the proposed or alternative actions were implemented.

### 5.1.1. Proposed Project

Without proper timing of construction, the physical disruption of spawning, incubation, and rearing of salmon and steelhead trout would occur periodically during the 27-month construction period;

Without effective erosion control methods, turbidity and sedimentation of salmon, steelhead trout, and shellfish spawning, incubation, and rearing habitats could continue beyond the 27-month period;

Depending on operation of the sluice gate, the release of clear water and subsequent increase in sedimentation transport capacity would change channel morphology, causing deterioration of salmon, steelhead trout, and shellfish spawning and rearing habitat;

Without adequate gravel replacement, the interception of bedload material and subsequent loss of natural gravel recruitment would cause degradation of the spawning beds;

### 5.1.2. Alternative Design, Configuration 1

The significant environmental impacts for Configuration 1 would be the same as those listed above for the proposed project with the following exceptions:

Without adequate gravel replacement, the interception of bedload material and subsequent loss of natural gravel recruitment would cause degradation of spawning beds; however, natural gravel recruitment would resume sooner than under the proposed project because of reduction in the height of the dam;

Reduced streamflow in the diversion reach would affect 0.8 mile of steelhead habitat and no salmon habitat;

False attraction of salmon and steelhead trout and subsequent migration delays and prespawning mortalities would be lessened (in comparison with the proposed project) by relocation of the main powerhouse at RM 1.9.'
' Conclusion to report (Hamma Hamma Hydroelectric Project, FERC No. 3178. Draft Environmental Impact Statement. [Washington, DC: Office of Hydropower Licensing, Federal Energy Regulatory Commission, April 1985], 5-1.)
2. You must recommend either the proposed or alternative action based on this report. If you use the design that includes lowering the height of the dam, how will it benefit the fish?
A. Incubation will occur periodically.
B. No fish would die before reproducing.
C. Sluice gate concerns would be removed.
D. Spawning beds will be damaged less.
E. Turbidity will occur periodically.

## Standard Mail (B)

General --- Mailers not already doing so will have until January 10, 2000, to place the current required subclass markings "Bound Printed Matter," "Special Standard," and "Library Mail" (or their authorized abbreviations) in the postage area.

Parcel Post --- Except for mail qualifying for a drop shipment rate, mailers will be given a one-year grace period, until January 10, 2000, to print the "Parcel Post" or "PP" markings in the postage area. Effective January 10, 1999, drop shipment mail must show the "Parcel Post" or "PP" marking in the postage area and the marking "Drop Ship" or "D/S" in either the postage area or on the line above or two lines above the address. An exception is that current DBMC rate mailers using the "DBMC Parcel Post" or "DBMC PP" markings may continue to do so until January 10, 2000.

The "Bulk Parcel Post" marking will be eliminated and so will the requirement to show in the indicia or as part of a DBMC rate marking the 5-digit or 3-digit ZIP Code ${ }^{\oplus}$ of the post office of mailing when postage is paid with permit imprint and other conditions are met. Mailers will have until January 10, 2000, to remove these markings.

Marking Changes for Bound Printed Matter --- Required January 10, 2000, the marking "Bulk Rate" or "Bik.Rt." on Presorted Bound Printed Matter will be replaced with "Presorted" (or "PRSRT") or at the mailer's option "Presorted Standard" (or "PRSRT STD"). Mailers at Carrier Route Bound Printed Matter rates will, in addition to the required "Bound Printed Matter" marking, be required to show only the "Carrier Route Presort" or "CAR-RT SORT" marking. Required markings must be placed in specific areas on the mailpiece (the "Bound Printed Matter" marking must be in the postage area and "Presorted," "Carrier Route Presort," or authorized abbreviations must appear either in the postage area or in the line above or two lines above the address). The "Catalog" or "Catalog Rate" marking is eliminated and mailers will have until January 10, 2000, to remove this marking from their pieces.
(Excerpted from 'JUST ENOUGH...TO STAY STRONG AND TO BE BETTER THAN EVER,'' a 1999 RATE CASE IMPLEMENTATION OVERVIEW from THE UNITED STATES POSTAL SERVICE.)
3. According to the policy shown, after January 10, 2000, on your company's carrier route bound printed matter, you will write "Bound Printed Matter," "Carrier Route Presort" and:
A. nothing else.
B. "Blk. Rt."
C. "CAR-RT SORT."
D. "Catalog Rate."
E. "Special Standard."

## Reading for Information Level 7

Individuals with Level 7 skills can figure out the underlying principles from these documents and apply them to very different situations. They can understand unfamiliar terms from the context. Level 7 materials are densely detailed passages, such as excerpts from complex regulatory and legal documents. They contain difficult concepts and complicated procedures. The language includes undefined jargon and technical terms.

## Section 108

a) Notwithstanding the provisions of Section 106, it is not an infringement of copyright for a library or archive, or any of its employees acting within the scope of their employment, to reproduce no more than one copy or phonorecord of a work, or to distribute such copy or phonorecord under the conditions specified by this section if

1) the reproduction or distribution is made without any purpose of direct or indirect commercial advantage;
2) the collections of the library or archive are (i) open to the public, or
(ii) available not only to researchers affiliated with the library or archive or with the institution of which it is a part, but also to other persons doing research in a specialized field; and
3) the reproduction or distribution of the work includes a notice of copyright.
b) The rights of reproduction and distribution under this section apply to a copy or phonorecord of an unpublished work duplicated in facsimile form solely for purposes of preservation and security, or for deposit for research use in another library or archive of the type described by clause (2) of subsection (a), if the copy or phonorecord reproduced is currently in the collections of that library or archive.
c) The right of reproduction under this section applies to a copy or phonorecord of a published work duplicated in facsimile form solely for the purpose of replacement of a copy or phonorecord that is damaged, deteriorating, lost, or stolen, if the library or archive has, after a reasonable effort, determined that an unused replacement cannot be obtained at fair cost.
1. Based on the information given, which of the following conditions would prohibit a city employee from photocopying an unpublished manuscript?
A. If the city library is accessible to any and all citizens and researchers
B. If the city library's original copy of the manuscript is in danger of damage through use
C. If the employee makes only one copy of the manuscript as a secure transcription
D. If the photocopy is to be sent to a public research library that does not have a copy of the manuscript
E. If the photocopy would not produce any income for the city library

## Recommended Year 2000 Contract Language

## Commercial Supply Products Warranty

This clause is recommended for voluntary use by Federal agencies in their solicitations and contracts for Year 2000 compliant software, hardware, and systems comprised of commercial information technology products with the following exceptions: (1) the requirement will not continue to exist after December 31, 1999, or (2) the agency has decided to accept offers from vendors that do not have the needed Year 2000 compliant products, but will be required under the contract to upgrade the information technology items to be Year 2000 compliant by a suitable date in advance of the year 2000. The clause may be used when some but not all of the products being acquired are required to be Year 2000 compliant.

The words "listed below" in the clause refer to products that the offeror has identified as being Year 2000 compliant in response to the procuring agency's specifications. For unlisted products, contracting officers are reminded to adhere to the provisions of Federal Acquisition Regulations (FAR) Part 12, and to obtain an express warranty that includes repair and replacement of any such defective unlisted products discovered within a reasonable period of time after acceptance if merchantability and fitness for use are waived and not included in the offeror's commercial warranty for those unlisted products.

## Year 2000 Warranty--Commercial Supply Items

The contractor warrants that each hardware, software, and firmware product delivered under this contract and listed below shall be able to accurately process date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations to the extent that other information technology, used in combination with the information technology being acquired, properly exchanges date/time data with it. If the contract requires that specific listed products must perform as a system in accordance with the foregoing warranty, then that warranty shall apply to those listed products as a system.
2. You are a contracting officer and your agency is interested in purchasing software that is an unlisted product. According to the regulations, can you purchase this product?
A. No, only listed products may be purchased.
B. No, the software must be upgraded first.
C. Yes, if any part of the software package is Year 2000 compliant.
D. Yes, if the product warranty includes a guarantee of utility and worth.
E. Yes, if you examine and find that the software is not defective in any way.

COMPENSATION. As compensation for Consultant's full and satisfactory performance under this Agreement, Contractor shall pay a sliding fee dependent upon the role(s) assigned to the Consultant. Contractor shall pay a fee of up to $\$ 1000$ (for up to one day of consulting) to prepare for each week of job analysis in anticipation that, during the week(s) that Consultant works with Contractor staff, less than one day will likely be required for preparation. Contractor shall pay a fee of up to $\$ 500$ (for up to one-half day of consulting) for each on-site inspection and observation under this agreement. Contractor shall pay a fee of $\$ 500$ per day when Consultant assists Contractor staff during a job analysis session; $\$ 700$ per day when Consultant is the primary job analyst (with Contractor staff assisting) and $\$ 1000$ per day when Consultant conducts job analysis sessions independently and without assistance.

INSURANCE. Consultant agrees to maintain, during the term of this Agreement, such insurance to cover any claim which becomes payable pursuant to a claim filed under this state's Tort Claim Act as will fully protect both Consultant and Contractor from any and all claims under any worker's compensation act or employer's liability laws, and from claims that may arise in the course of performance of work and services under this Agreement by Consultant or Consultant's employees, agents, representatives or any other persons directly or indirectly acting for Consultant.

INDEMNIFICATION. Consultant shall indemnify Contractor against any and all claims, actions, loss and/or liabilities (including but not limited to attorney fees and court costs) based upon or arising out of damage or injury, including death, to persons or property caused by or sustained in connection with Consultant's performance of this Agreement or by conditions created thereby, or based upon Consultant's violation of any statute, ordinance or regulation. Contractor shall promptly notify Consultant of any legal action, lawsuit, or other legal process served or commenced against Contractor and which may involve services performed by Consultant under this agreement. Consultant shall also indemnify Contractor against all liability and loss in connection with, and shall assume full responsibility for, payment of all federal, state and local taxes or contributions imposed or required under unemployment insurance, Social Security and income tax laws, with respect to Consultant's employees, agents and representatives engaged in the performance of this Agreement.
3. According to the contract, as a consultant, which of the following is NOT your responsibility?
A. Cover all tax liability for a clerk that you hire to help you on a job analysis that the Contractor has hired you to conduct on your own.
B. Guarantee that the Contractor cannot be sued for a mistake made by you while assisting a Contractor representative to perform a job analysis.
C. Limit preparation for a particular job analysis study to one day or less.
D. Notify the Contractor that you are included in a legal complaint by a client's employee concerning an equal opportunity violation.
E. Provide insurance to cover the company's video equipment that you broke accidentally during job analysis.

## Answers to Reading for Information Practice Set

## Answers to Reading for Information Level 3 Practice Set

Answer to Level 3 Sample Item 1:
A. Incorrect: Your foot is supposed to be on the crossbar, but the planting bar itself is to be held straight up.
B. Incorrect: You lay the bar on the ground beside the hole after the hole is dug.
C. Incorrect: The bottom edge of the bar is to be against the ground; this is not where you hold the planting bar.
D. Correct: You are to hold the planting bar straight up while digging a hole.
E. Incorrect: You push down hard with your foot to dig the hole and you hold the bar with both hands but very hard is not part of holding the bar.

Answer to Level 3 Sample Item 2:
A. Incorrect: AB ointment is applied after the wound has been washed.
B. Incorrect: A soft dry cloth is used to spread the ointment after the wound has been washed.
C. Correct: A soft wet cloth is used with soap and water to wash the wound.
D. Incorrect: The white cotton pad is used to cover the wound after it has been washed and treated with ointment.
E. Incorrect: The wound is to be cleaned using the soap and water. Wound cleaner is never mentioned.

Answer to Level 3 Sample Item 3:
A. Incorrect: Each business will initially be given 1 garbage can, but may request 2 more.
B. Incorrect: Each business may request 2 additional cans, for a total of 3 .
C. Correct: The memo states, You may have a total of 3 garbage cans.
D. Incorrect: This number is not mentioned in the memo.
E. Incorrect: Each garbage can must weigh less than 30 pounds when full.

## Answers to Reading for Information Level 4 Practice Set

Answer to Level 4 Sample Item 1:
A. Correct: RC comes alphabetically after RA and, therefore, the number is irrelevant.
B. Incorrect: Both books are RC and 405 comes before, not after, 410 .
C. Incorrect: RC comes alphabetically after RA and, therefore, the number is irrelevant.
D. Incorrect: Both books are RC and 405 comes after, not before, 310 .
E. Incorrect: Only books with blue dots are put on the new books shelves.

## Answer to Level 4 Sample Item 2:

A. Incorrect: You are to ask the customer if there are stains, not check for them yourself.
B. Incorrect: Red sticky dots are used to identify stains; if there are none, no dots would be put on the clothes.
C. Correct: After asking about stains, the clothes are to be put in the bags behind the counter for cleaning.
D. Incorrect: Writing the customer's name on the order form is done after the clothes are put in the cleaning bags.
E. Incorrect: Unknown stains refers to the type of stain, not the customer's response that there are no stains.

Answer to Level 4 Sample Item 3:
A. Incorrect: The notice states that the bus will not stop at Bellevue Square after a snowstorm.
B. Correct: The notice states that, after a snowstorm, The bus will not stop at Bellevue Square or the Stadium. Employees usually boarding at those places will be picked up at the Eastdale Mall stop.
C. Incorrect: Olive Street will be closed after a snowstorm, and people usually picked up at that stop will have to walk to Spring Street.
D. Incorrect: People who are normally picked up on Olive Street will have to walk to Spring Street after a snowstorm.
E. Incorrect: The notice states that the bus will not stop at the Stadium stop after a snowstorm.

## Answers to Reading for Information Level 5 Practice Set

Answer to Level 5 Sample Item 1:
A. Incorrect: Although it is correct that returned boxes should be sent to the manufacturer's shipping address, the box will be refused if it does not have an authorization sticker.
B. Incorrect: Returned boxes should not be sent to the manufacturer's corporate address, and the box would be refused without an authorization sticker.
C. Correct: The passage states, If you do not attach the provided sticker, your returned box will be refused by the manufacturer as unauthorized, and you will need to obtain a new letter, authorization, sticker, and closing date. Therefore, if you lose the original authorization sticker, you will have to repeat the standard procedure to get a new letter, etc.
D. Incorrect: An authorization sticker from another company would not have the correct authorization number from the manufacturer's sales representative.
E. Incorrect: The sales representative provides the authorization number, but the rejected part goes to the manufacturer's shipping address after the authorization sticker has been received. The rejected parts do not go to the sales representative.

## Answer to Level 5 Sample Item 2:

A. Incorrect: The exhibit will be open both Monday and Tuesday, plus Sunday afternoon and Wednesday morning.
B. Incorrect: The exhibit will be open both Monday and Tuesday, plus Sunday afternoon and Wednesday morning. Also, the letter doesn't indicate that the whole Sunday afternoon exhibit may be canceled because of security, just that the ending time may change.
C. Incorrect: This ignores the Sunday afternoon and Wednesday morning sessions.
D. Correct: This includes Sunday afternoon, Monday, Tuesday, and Wednesday morning.
E. Incorrect: The letter doesn't indicate that the whole Sunday afternoon exhibit may be canceled because of security, just that the ending time may change.

## Answer to Level 5 Sample Item 3:

A. Incorrect: TCA would not cover it in any case because the car was being used at the time for personal business.
B. Incorrect: Liability involves a third, which does not apply here, and this is personal travel as well.
C. Correct: This is assumed because the rental agencies generally do not hold the renter responsible for loss of or damage to the car resulting from accidental fire or acts of nature as long as the employee is not in violation of the agreement at the time of the incident.
D. Incorrect: The rental agency covers acts of nature.
E. Incorrect: Your insurance is only required in liability instances.

## Answers to Reading for Information Level 6 Practice Set

Answer to Level 6 Sample Item 1:
A. Incorrect: Four wires, two smooth and two barbed, are an option, not a requirement. According to paragraph 3, a fence may have three barbed wires OR four wires, two barbed and two smooth.
B. Incorrect: The posts do not need to be closer. According to paragraph 3, the posts can be up to two rods apart, and the posts for the described fence are two rods apart.
C. Incorrect: The top wire does not need to be higher. According to paragraph 3, the top wire is to be from forty-eight to fifty-four inches high, and the top wire for the described fence is forty-nine inches high.
D. Incorrect: The fence does not need more stays. According to paragraph 3, there must be at least two stays between the posts, and the described fence has two stays between the posts.
E. Correct: The bottom wire should be higher. According to paragraph 3, the bottom wire should be from twelve to eighteen inches above the ground. The bottom wire of the described fence is only ten inches above the ground.

Answer to Level 6 Sample Item 2:
A. Incorrect: This will occur periodically either way. The report is concerned with disruption of the incubation process.
B. Incorrect: While prespawning mortalities would be lessened under the alternative design, this foil's promise is not guaranteed.
C. Incorrect: There is no mention of this removal under the Alternative Design, so therefore it remains the same as Configuration 1.
D. Correct: The alternative design would affect no salmon habitat.
E. Incorrect: The proposed project creates worries about extended turbidity; the alternative design does not list an exception to this concern.

## Answer to Level 6 Sample Item 3:

A. Correct: The current Bulk Rate will be eliminated. This is carrier route bound printed matter so you are required to show only the Bound Printed Matter marking and Carrier Route Presort or CAR-RT SORT.
B. Incorrect: Blk. Rt. marking will be eliminated for mailers using carrier route Bound Printed Matter rates.
C. Incorrect: You have already written Carrier Route Presort, so CAR-RT SORT is not necessary.
D. Incorrect: Catalog Rate will be eliminated.
E. Incorrect: Bound Printed Matter is a different subclass than Special Standard, so the two markings would not be used together.

## Answers to Reading for Information Level 7 Practice Set

Answer to Level 7 Sample Item 1:
A. Incorrect: This condition is acceptable. According to subsection a), clause 2), one of the conditions for permissible copying of any work is that the library be public and/or open to various researchers.
B. Incorrect: This condition is acceptable. According to subsection b), making a copy of an unpublished manuscript is permissible if the copy is being made for the sake of preservation. If the original is in danger of being damaged through use, then an additional copy would be justified for the sake of preservation.
C. Incorrect: This condition is acceptable. According to subsection b), making a copy of an unpublished manuscript is permissible if the copy is being made for the sake of security.
D. Correct: This condition is NOT acceptable. According to subsection b), copies of unpublished manuscripts may be sent to another research library only if that research library already has a copy of the manuscript.
E. Incorrect: This condition is acceptable. According to subsection a), clause 1), one of the conditions for permissible copying of any work is that no commercial advantage will be gained through the copying.

## Answer to Level 7 Sample Item 2:

A. Incorrect: In the second paragraph, you are reminded to adhere to Federal regulations if you purchase unlisted products, so that is not prohibited.
B. Incorrect: According to the first paragraph, if you require the software to be upgraded by an appropriate date before 2000, you can purchase it.
C. Incorrect: The software itself must not only be completely compliant, but it must work in compliance with other information technology.
D. Correct: According to the second paragraph, if merchantability and fitness for use are waived and not included in the offeror's commercial warranty, you must get an express warranty for unlisted products to cover this, implying that products which do guarantee these things are okay.
E. Incorrect: Software might not have any defects and still not be compliant.

Answer to Level 7 Sample Item 3:
A. Incorrect: The consultant is responsible for taxes for his or her own employees.
B. Incorrect: The consultant must indemnify the Contractor against any and all claims....
C. Incorrect: The consultant is cautioned that he or she will only be paid for up to one day of preparation so this should be a self-imposed limit.
D. Correct: The Contractor is obligated to notify the consultant, not the other way around.
E. Incorrect: The consultant is responsible for insurance on herself or himself.

## Writing

## Test Description

The ACT WorkKeys Writing test measures the skill individuals use when they write an original response to a work-related situation. Components of the Writing skill include sentence structure, mechanics, grammar, word usage, tone and word choice, organization and focus, and development of ideas.

The main requirement of workplace writing is clarity. Employers want their employees’ written communications to be direct, grammatically correct, and easy to read. Careless errors may lead the reader to believe there are also errors in the facts, and the writer loses credibility and trustworthiness. ACT WorkKeys Writing requires standard business English, defined as writing that is direct, courteous, grammatically correct, and not overly casual.

There are five skill levels assigned to test responses. Level 1 is the least complex and Level 5 is the most complex. At each new level, individuals need to demonstrate more competency than they do at the previous levels. For example, Level 3 builds upon the skills used at Levels 1 and 2. With the increased skill required at each level, the writing that individuals produce communicates more clearly and smoothly as they move to Level 5. At the same time, errors become less frequent and less serious.

## Test Taking Tips

(The Writing Assessment)

During the Writing assessment, you will be asked to read a short description of a workplace situation and then write your response to that situation.

## Listen to the instructions

Listen to the verbal instructions provided before testing starts and read the instructions provided in the test booklet.

## Use complete sentences.

Make sure each sentence has a subject and a verb. Remember-the important thing is clarity. Avoid run-on sentences (two sentences that are not separated by punctuation or capitalization) and strings of sentences connected by "and." Using a variety of sentence structures is encouraged.

## Check your spelling, punctuation, grammar, and word usage.

Correct spelling, punctuation, grammar, and word usage are all essential to conveying a clear message.

## Use appropriate language, tone, and style.

Language, tone, and style should be appropriate to the business situation. Your writing should not contain slang.

## Arrange the information into an organized, well-developed composition.

Your ideas should be presented in a logical order using well-organized sentences and paragraphs. Your ideas should be supported with good examples and specific details.

## Review your work.

If you have extra time during the test, you may go back and read over your response. Watch for incomplete sentences, missing words, and missing punctuation. If using paper and pen for the practice test, you may change part of your response by neatly crossing out anything that you wish to delete.

# ACT WorkKeys Writing Practice <br> Test 

## Materials Required for the Practice Test

You will need a timer.
This practice test can help you understand the ACT WorkKeys skill levels and give you practice for the actual ACT WorkKeys assessment. However, remember that this exercise is not a substitute for the actual ACT WorkKeys assessment and score. When you have finished, look at the scoring guide, the level descriptions, and the sample responses to estimate the score on your response.

The following represent the directions for the actual Writing assessment, which consists of 1 prompt and has a time limit of 30 minutes:

DIRECTIONS: Before you begin writing, read the assigned topic carefully to understand exactly what you are being asked to write. Be sure your writing focuses on the topic and is written in a businesslike tone and style.

Develop your ideas as completely as possible, and organize your responses as well as you can. Give reasons and use examples to support your ideas. Write clearly and in complete sentences.

Your writing sample will be scored on focus, content, organization, businessappropriate tone, style, and mechanics. You may not use any reference materials during the test.

## ACT WorkKeys Writing Practice Test

Set the timer for 30 minutes and begin the practice test:

Your workplace has quarterly employee meetings in which job-related concerns are discussed. One week before the meeting, employees are encouraged to write about their job-related concerns in a letter and send it to the meeting chairperson. Write about a job-related concern that you have and suggest how your employer could deal with it.

When you are finished writing or the 30 minutes are up, whichever comes first, compare your writing to the Scoring Guide and Sample Responses on the following pages.

## Scoring and Samples

## for the

## Writing Practice Test

## Writing Scoring Guide

## Score 0

Off-topic, offensive or strongly inappropriate language (may include profanity and/or threats), or written in a language other than English.

## Score 1

A paper at this level has little or no development or support. Any development is extremely simple and/or repetitive. No organization is evident. Sentences lack variety, and construction errors seriously impede understanding. Word choice is poor and interferes with communication. The style and tone are inconsistent with standard business English. Errors in grammar and mechanics are frequent, severe, and seriously interfere with communication.

## Score 2

A paper at this level has thinly developed ideas that are not expanded and may be presented as a list. Although some organization is evident, the focus is unclear and/or inconsistent. Few or no transitions are used. Sentences are often simple or repetitive, with some noticeable errors in construction. Word choice is limited, often repetitive, and sometimes incorrect. The style and tone may be inconsistent with standard business English. Significant errors in grammar and/or mechanics interfere with communication.

## Score 3

A paper at this level has adequate development of ideas but is limited in depth and thoroughness. Supporting examples tend to be general and details are relevant, but they may be repetitive. The writing is generally organized but may have minor lapses in focus. Transitions are simple. Sentences are usually correct, with some variety and complexity attempted. Word choice is generally clear and correct but may be repetitive and/or informal. The style and tone are consistent with standard business English but may be overly casual. Some errors in grammar and mechanics are apparent but do not interfere with communication. Basic spelling is correct.

## Score 4

A paper at this level has most of the ideas well developed with relevant supporting examples and details. The writing is organized and maintains consistent focus. Transitions are effective, if not especially varied. Sentences are generally varied in length and complexity. Word choice shows some precision and variety. The style and tone are consistent with standard business English. Relatively minor and/or infrequent errors in grammar and/or mechanics do not interfere with communication.

## Score 5

A paper at this highest level has well-developed ideas elaborated with relevant supporting examples and specific details. The writing shows insight. The organization is smooth
and maintains clear and consistent focus from beginning to end. Transitions are varied and effective, creating a seamless flow of ideas. Sentences are varied in length and complexity. Word choice is precise and varied. The style and tone are appropriate for a business setting. Minor and/or infrequent errors in grammar and/or mechanics, if present, do not interfere with communication.

## Sample Responses

## Level 1 Sample Response:

Everymorning when walk step over creck. company parking lot where I work. Have see other workers trip thier befour. Wood you lik to step in this crap every day!!! Theres another buiding to Get this fixed some gets hurt. For saftey reson

## Indications that this is a Level 1 response:

- Sentence construction errors hinder understanding. The majority of the writing consists of sentence fragments or run-on sentences.
Sentence fragment example: Does company parking lot where I work mean that the writer works in the parking lot, perhaps as a parking attendant or does it mean the crack (creck) is in the parking lot that the employee uses at work?
Run-on sentence example: Theres another buiding to Get this fixed before some gets hurt. Does the writer mean that there is a sidewalk crack near another building too? Or will this problem be repaired in another building? Note that the capitalization of the word Get does signal that the writer most likely intended to start a new sentence here.
- Errors in grammar and mechanics are frequent and interfere with communication. Errors include misspellings such as everymorning, creck, thier, befour, wood, lik, buiding, saftey; missing capitalization at the beginning of the second sentence; a missing apostrophe (theres), missing punctuation, and a problem with verb tense (have see should be have seen).
- There are errors in word usage (thier should be there in Have see other workers trip thier befour, wood should be would in Wood you lik to step in this, and to should be too in Theres another buiding to).
- The tone is inconsistent with standard business English (wood you lik to step in this crap every day!!!).
- The writing lacks organization. The response has no transitions or paragraph breaks and seems to skip around.
- Although there is an attempt to communicate ideas, there is only simple development. The response attempts to present basic thoughts about the need to fix something (either crecks or crap) before someone gets hurt. The writer could expand the development by adding a description of the problem, giving information about location and size. Such a description would support the writer's view that something needs to be done.


## Level 2 Sample Response:

I dont mean to complane to complete my job good I must tell my problems to you in this letter and hope you will talk at are next meeting

Other employes in the area. Always chatinng next to my area making it hard for me to consentrate on my work and get anything done rite some employes play there radios to loud breaking my chains of thought.

Often the hall way is nonwork convirsation. I dont mean to complane. Im glad folks here are freindly and enjoy company but Id like manageers to sugest that employes go to the brakroom if they want to enjoy a convirsation about nonwork

For some employes, music helps them consentrate on there work. For me myself the nieghbor workers radio playing in the back ground is annoying and distracting. I aint the only who has this problem. I dont mean to complane.

Id think that you would want to fix these problems so all workers can do a better job at there work and make more money for the company. Afteral we are all workin here so the company makes money so we can make money. Making money the reeson for having a company in the $1^{\text {st }}$ place you wanting are company to do a good job at making money you really needs to get cracking about these things or else we are going to be going in the ground big time Im afraid. I hope you will give it a go. About my problems at our next meeting thanks.

## Indications that this is a Level $\mathbf{2}$ response:

- The sentences are somewhat repetitive (the phrase I dont mean to complane is used three times). There are some sentence construction errors, including sentence fragments and run-on sentences:
I dont mean to complane to complete my job good I must tell my problems to you in this letter and hope you will talk at are next meeting
Other employes in the area. Always chatinng next to my area making it hard for me to consentrate on my work and get anything done rite some employes play there radios to loud breaking my chains of thought.
Making money the reeson for having a company in the $1^{\text {st }}$ place you wanting are company to do a good job at making money you really needs to get talking about these things or else we are going to be going in the ground big time Im afraid.
About my problems at our next meeting thanks.
- Errors in grammar and mechanics interfere some with communication. Errors include misspellings such as complane, hall way, employes, chatinng, consentrate, rite, convirsation, freindly, manageers, sugest, brakroom, nieghbor, aint, afteral, workin, and reeson; the subject-verb disagreement such as you really needs to get cracking; and missing apostrophes in dont, Id, and Im.
- Word usage problems include the incorrect use of are instead of our and there instead of their.
- The style, tone, and language are inconsistent with standard business English. The use of the phrases I aint the only one who has this problem, you really needs to get cracking, going in the ground big time, give it a go, and using the number $1^{\text {st }}$ instead of first makes the tone overly casual.
- The writing has some organization, but the focus is unclear. For example, the first two paragraphs should be combined to introduce the topic. Simple transitions are used and are limited to and, if, and but.
- The ideas presented are general and not expanded. The writer states that excessive talking and loud radios are a problem, but there are no details added to develop and support these ideas.


## Level 3 Sample Response:

Believe it or not, every year I have parents whom call the school office and do not want their child to help with the annual chocolate sales for one reason or another. I tell them that it is an annual fund raser we do to raise money for the library but some still do not want to participate and complain more. So I tell them that it is fine no one forcing them, but they are already upset by then.

Some parents don't like the idea that their kids are promoting candy as they say they have tried to keep candy away from their kids for health reasons now here we want them to sell it. Other parents do not like the idea that the kids have a box of chocolate bars to carry around. Some say they know the kids by a couple chocolate bars themselves every day to munch on. A couple parents have even had boxs of chocolates melt all over the seats of their cars - they of course call and complain that it is the schools fault and I have to listen to it.

I know it is a good fund raser for the school library but I am sick of handing these calls every year and would like to see the program ended. The parents sometimes call and complain about other things their kids sell too but this is the worst one. They just have so many reasons why they don't like the candy selling. Maybe the library can find something else for students to sell.

## Indications that this is a Level 3 response:

- Sentence structures are usually correct despite some run-on sentences (Some parents don't like the idea that their kids are promoting candy as they say they have tried to keep candy away from their kids for health reasons now here we want them to sell it). The writer does attempt some variety in sentence structure.
- There are some errors in grammar and mechanics, but they do not interfere with communication. Spelling is generally correct except for fund raser, handing, and boxs. Other errors include missing the word is in fine no one forcing them and a missing apostrophe in schools fault.
- Word choice is generally clear and correct but is repetitive. For instance, the word complain is used too many times. The word whom in the first sentence should be who. The word by should be buy in the third sentence of the second paragraph.
- The language does not contain slang or rude language, although it is somewhat casual (Believe it or not, munch on, and I am sick of).
- The writing is generally organized, and simple transitions are used (and, so, and but).
- Ideas are adequately developed but are limited in depth and thoroughness. The idea that some parents do not want their children to sell chocolate is relayed, but there is limited development as to why the parents do not want their children selling chocolate. The writer also misses a good opportunity to develop ideas and suggestions for replacing the chocolate sales. The supporting examples that are included are relevant, but the main point the writer wants to relay is not delivered until the last paragraph: I am sick of handing these calls every year and would like to see the program ended.


## Level 4 Sample Response:

Requiring employees to pay forty percent more in health insurance, with only a one-month notice is unprecedented. As a supervisor, I fear that some of my employees will not be able to afford this change in their monthly budget on such short notice. I hope that you will consider giving the employees a six-month notice so they can prepare for the increased cost. Another alternative would be to increase the cost on a gradual basis over the next year. At the very least, please do not start implementing the new plan in January when employees are recovering from the holiday shopping season expenses.

The first considereation, the six-month notice, would allow employees to adjust their family budgets in preparation for the increase in health insurance expenditures. Employees could start saving now, so that when their monthly payments escalate, they will be prepared. I think a few employees would probably consider switching over to their spouses' insurance plans. A six-month notice would give them a sufficient amount of time to make decisions that suit their needs. Of course, some employees might want to explore the option of a private insurance carrier also.

Another thing to do would be to gradually increase the health insurance payments over the next year. Perhaps you could give employees a two-month notice, then gradually increase the monthly payments. I realize that this might generate additional accounting; however, enough employees would benefit to justify the extra bookkeeping.

Above all please do not start the new plan in January right after the busy holiday shopping season. If you must establish the new plan soon, I think you should start it in February. Employees are just getting their holiday bills paid in January.

I recognize that the rising cost of health insurance is not an expenditure the company can absorb on a long-term basis. Nevertheless, I ask that you weigh the alternatives that I have suggested to make the transisition better for our employees. Your considereation of this matter is appreciated.

## Indications that this is a Level 4 response:

- Sentences are generally varied in length and complexity.
- Infrequent errors in grammar and/or mechanics do not interfere with communication. The spelling is generally correct; the only misspellings are considereation and transisition. The first sentence of the first paragraph does not require a comma (between insurance and with). A comma is missing from the first sentence of the fourth paragraph (after above all).
- Word choice shows some precision and variety. Words such as unprecedented, alternative, insurance expenditures, a private insurance carrier, establish, and an expenditure the company can absorb show precise and varied language.
- The tone is consistent with standard business English.
- The writing is organized and maintains consistent focus. Transitions are effective (The first considereation, another thing, however, above all, and if).
- The first idea regarding a six-month notice is well developed with relevant supporting examples and details. The two other ideas about gradually increasing the health insurance payments and not starting a new plan in January are expressed, but their development is somewhat limited.


## Level 5 Sample Response:

Upon reviewing the schedule for the quarterly employee meetings, I noticed that they are planned from two o'clock until three-thirty on Friday afternoons. In my opinion, Friday afternoon isn't a good time for such meetings, even if it's only four times a year. In this letter, I will explain my reasons as well as suggest an alternate meeting schedule. Friday afternoons are very hectic for some departments, fewer employees are at work on Fridays, and recent studies indicate that the most productive meetings are held in the morning and are limited to one hour.

First, Friday afternoons are the most demanding time of the week for some departments. The packaging and shipping department employees work frantically to meet the early Friday afternoon shipping deadline imposed by most of our carriers. Halting the process so employees can attend such meetings will result in some orders being delayed until Monday, which may not serve our business well. For the sales department, it's their last chance to call those hard-to-reach customers who need answers this week. If they make anxious customers wait over the weekend, those customers generally seek other suppliers. From my sales experience, I expect that Friday afternoon meetings would result in our sales staff losing two customers per meeting.

In addition, because most of our part-time employees do not work on Friday, the number of meeting participants will automatically be reduced for Friday meetings. Furthermore, employees who do not have Friday deadlines occasionally take vacation on Fridays. Given that management wants employees to participate in the meetings, the Friday schedule does not correlate with this corporate goal. The workdays with the greatest employee presence are Tuesday, Wednesday, and Thursday. I recommend holding the meeting on one of those days.

Whats more, a recent university study suggests that the best time to hold meetings is in the morning. The study revealed that the average individual generally absorbs more information and contributes more in the morning than in the afternoon. It also suggested that the ideal meeting should not exceed one hour because people begin to lose interest after that.

In summary, Friday afternoons are not ideal times to schedule employee meetings. It would be impracticle for some departments to participate, thus hurting the entire company. In addition, employee attendance is lowest on Fridays, reducing meeting participation. Furthermore, studies indicate that meetings are most productive when held in the morning and limited to one hour. In light of this, please consider rescheduling the meetings to Tuesday, Wednesday, or Thursday mornings and limiting each one to one hour in length.

## Indications that this is a Level 5 response:

- Sentences are varied in length and complexity.
- Infrequent, minor errors in grammar and/or mechanics do not interfere with communication. Errors include the misspelling of impracticle and an apostrophe missing from whats more.
- Word usage shows considerable precision and variety (most demanding, frantically, halting, anxious, automatically, presence, correlate, revealed, and impracticle).
- The style and tone are consistent with standard business English.
- The writing is well organized and maintains clear and consistent focus from beginning to end. The first paragraph introduces the ideas, the middle paragraphs provide examples and details, and the concluding paragraph summarizes the entire response. Transitions such as first, in addition, whats more, furthermore, and also create a seamless flow of ideas.
- The three ideas are well developed with relevant supporting examples and specific details. The three ideas are about Friday afternoon being the most demanding time for some departments, employee attendance being low on Fridays, and studies indicating that shorter meetings held in the morning are most productive. The details and examples show insight as to why rescheduling the meetings to Tuesday, Wednesday, or Thursday mornings and limiting each one to one hour in length should be considered.

| EXAMPLES OF COMMON WRITING ERRORS |  |  |
| :---: | :---: | :---: |
| Sentence Structure | Fragments | Because he is here Monday. Supervisor waiting main office. |
|  | Run-on sentences | Come to the shop we have a sale. He came to the meeting he brought the report. |
|  | Comma splices | Gustavo wrote the customer a lettet; Catalina mailed it. |
| Mechanical | Misspelled words | detrimentel instead of detrimental |
|  | Incorrect or missing punctuation | doni <br> Aren you going to go. |
|  | Extra capitalization (or none) | she called the secretmy about the Meeting. |
| Grammatical | Incorrect verb tenses | Yesterday she work on the bucgt. He dropped off the letter and crops the package. She hired John and hires Mari a |
|  | Shifts in tense |  |
|  | Incorrect subject-verb agreement | Rajni and her supervisor is going to training. |
|  | Unclear pronoun references | I listened to Roberts and Bills ideas and I liked his better. |
|  | Missing words | Mary vacation. |
| Word Usage | Improper word choices Use of symbols not appropriate for a business setting | cause instead of because; too instead of to \& instead of and; + instead of plus |
| Tone/Language | Rude, slang, or casual language not appropriate for a business setting/not consistent with standard business English | Please exercise good judgment when extending credit. We do not want to be ripped off |
| Style | Sentences may be awkward, repetitive, and/or choppy with little or no variety. Response may read like a list. | The clock has been repaired. It can be picked up. The repair shop is closed on Sunday. It can be picked up any other day. |
| Organization | Illogical grouping of information | The details in the message may not be grouped together logically; e.g., the fust name of a person may be at the start of the message and the last name may be at the end. |
|  | Incorrect or simple transitions | The transitions are often incorrect: He said he left early to get to the meeting on time so he arrived late instead of ...but he arrived late. <br> The transitions may be simple: but, also |

