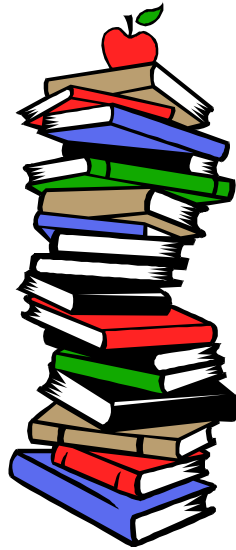


**Placement Testing
at the
University of Alaska Fairbanks**



What you need to know.....

Sample Test Items

**Academic Advising Center
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Understanding Placement Tests at UAF



Placement testing

Although no one likes to take tests, they do serve some useful purposes. For one thing, they allow us to figure out what we know and what we don't know. For another, they can help the university to place students in classes that match their skills levels.

Who must take the tests?

All entering freshmen (or transfer students with less than 30 credit hours of coursework) need to take a placement test. This can be an ACT, SAT, COMPASS or ASSET test. Non-degree students wishing to take an English or mathematics course also need to take a placement test to determine the appropriate course. Anyone with previous test scores older than two years (without taking a math or English course) should plan on taking the COMPASS test.

When are the tests given?

The ACT and SAT can be taken at the published national test dates. A residual ACT test can be taken just prior to the semester start at the UAF main campus. The COMPASS test is a computerized version of the ASSET test and both of these can be scheduled directly with the nearest campus at no charge to the student.

What will the tests cover?

Mathematics: All students are required to complete two college-level mathematics courses in order to qualify for graduation. The mathematics test will attempt to measure a student's achievement that is prerequisite for entry-level college mathematics courses. Depending upon previous math courses and when these were taken, the mathematics test will cover elementary as well as intermediate algebra skills.

Reading: Being able to read efficiently is vital to college success. Why? Because all courses demand that students read. Also, a rich vocabulary can enrich. For these reasons, students entering the university are tested on their reading comprehension as well as their vocabulary.

Writing: Because all students are required to successfully complete two written communications courses for graduation, a writing test will help to verify the appropriate placement. This portion of the testing reviews written passages and allows for the correction or improvement to these.

Can I study for these tests?

There are practice tests available for both the ACT and SAT. In addition there are practice problems for the COMPASS (ASSET) on the ACT web site

(<http://www.act.org>). Copies of these follow for your review and understanding of the content



Sample Test Items

Sample items are provided to illustrate the types of questions you will encounter in the COMPASS placement test(s). Items are included for Numerical Skills/Pre-algebra, Algebra, College Algebra, Writing Skills and Reading Skills.

Numerical Skills/Pre-Algebra Placement

(Averages: Means, Medians, and Modes)

1. What is the average (arithmetic mean) of 8, 7, 7, 5, 3, 2, and 2?

- A. $3\frac{4}{7}$
- B. $4\frac{5}{6}$
- C. $4\frac{6}{7}$
- D. 5
- E. $6\frac{4}{5}$

(Basic Operations with Decimals)

2. Ben is making wooden toys for the next arts and crafts sale. Each toy costs Ben \$1.80 to make. If he sells the toys for \$3.00 each, how many will he have to sell to make a profit of exactly \$36.00 ?

- A. 12
- B. 20
- C. 30
- D. 60
- E. 108

(Basic Operations with Fractions)

3. How many yards of material from a 24-yard length of cloth remain after 3 pieces, each $3\frac{1}{2}$ yards long, and 5 pieces, each $2\frac{1}{4}$ yards long, are removed?

- A. $2\frac{1}{4}$
- B. $4\frac{1}{4}$
- C. $4\frac{5}{6}$
- D. $10\frac{1}{4}$
- E. $10\frac{5}{6}$

(Percentages)

4. Phillip charged \$400 worth of goods on his credit card. On his first bill, he was not charged any interest, and he made a payment of \$20. He then charged another \$18 worth of goods. On his second bill a month later, he was charged 2% interest on his entire unpaid balance. How much interest was Phillip charged on his second bill?
- A. \$8.76
 - B. \$7.96
 - C. \$7.60
 - D. \$7.24
 - E. \$6.63

Answers:

1. C

2. C

3. A

4. B

Algebra Placement

(Elementary Algebra: Linear Equations in One Variable)

1. A student has earned scores of 87, 81, and 88 on the first 3 of 4 tests. If the student wants an average (arithmetic mean) of exactly 87, what score must she earn on the fourth test?
- A. 85
 - B. 86
 - C. 87
 - D. 92
 - E. 93

(Elementary Algebra: Basic Operations with Polynomials)

2. Which of the following expressions represents the product of 3 less than twice x and 2 more than the quantity 3 times x ?
- A. $-6x^2 + 25x + 6$
 - B. $6x^2 + 5x + 6$
 - C. $6x^2 - 5x + 6$
 - D. $6x^2 - 5x - 6$
 - E. $6x^2 - 13x - 6$

(Elementary Algebra: Substituting Values into Algebraic Expressions)

3. If $x = -1$ and $y = 2$, what is the value of the expression $2x^3 - 3xy$?
- A. 8
 - B. 4
 - C. -1
 - D. -4
 - E. -8

(Intermediate Algebra: Rational Expressions)

4. For all $r \neq \pm 2$, $\frac{r^2 - 5r + 6}{r^2 - 4} = ?$
- A. $\frac{r-3}{r+2}$
 - B. $\frac{r-2}{r+2}$
 - C. $\frac{r-2}{r+3}$
 - D. $\frac{r+3}{r-2}$
 - E. $\frac{r+3}{r+2}$

(Coordinate Geometry: Linear Equations in Two Variables)

5. What is the equation of the line that contains the points with (x,y) coordinates $(-3,7)$ and $(5,-1)$?
- A. $y = 3x - 2$
 - B. $y = x + 10$
 - C. $y = -\frac{1}{3}x + 8$
 - D. $y = -\frac{3}{2}x + \frac{11}{4}$
 - E. $y = -x + 4$

Answers:

1. D 2. D 3. B 4. A 5. E

College Algebra Placement

(Complex Numbers)

1. For $i = \sqrt{-1}$, if $3i(2 + 5i) = x + 6i$, then $x = ?$
- A. -15
 - B. 5
 - C. $5i$
 - D. $15i$
 - E. $27i$

(Functions)

2. If $f(4) = 0$ and $f(6) = 6$, which of the following could represent $f(x)$?
- A. $\frac{2}{3}x - 4$
 - B. $x + 2$
 - C. $x - 4$
 - D. $\frac{3}{2}x + 6$
 - E. $3x - 12$

Answers:

1. A

2. E

Writing Skills Placement

The Writing Skills Placement Test helps institutions determine whether students are ready for entry-level college writing courses or other courses with significant writing loads, or whether students require developmental writing instruction prior to entry into those courses.

This test asks students to find and correct errors in essays presented on the computer screen. The test items include the following content categories:

Usage/Mechanics

- ?? Punctuation
- ?? Basic grammar and usage
- ?? Sentence structure

Rhetorical Skills

- ?? Strategy
- ?? Organization
- ?? Style

Sample Essay: Writing Skills Placement

Examinees are presented with an essay similar to the one below and are asked to look for errors in grammar, punctuation, usage, and style. When examinees find what they believe to be errors, they move the mouse pointer to the appropriate part of the text and click the mouse. On the right side of the screen five options appear for revising that area of text. Note that the first option is always identical to the original wording in the text, and thus represents a NO CHANGE option. Examinees can choose to revise any section of the essay. After revising the essay, examinees are routed to two items focusing on rhetorical strategies.

The essay below contains the same number and types of errors that an actual Writing Skills Test unit would contain; however, for demonstration purposes, only a handful of the segments below have been selected for revision. These segments are indicated by bold type, and the items associated with them are shown below. (Note: There are additional errors in the essay that are not in bold that a student in an actual testing situation would need to respond to.)

An increasing number of lakes and rivers in the northern United States invaded are being by a mussel no larger than a fingernail. The zebra mussel probably steamed aboard a transatlantic ship sometime in the mid-1980s from the Caspian Sea into U.S. waters. Despite its growth was explosive, partly because the species **was preyed upon by very few native predators in its new environment.** As a consequence, the zebra mussels did find a plentiful food supply. They eat huge

amounts of phytoplankton, which tiny free-floating sea organisms that dwell in water. **Scientists are concerned when the mussels** may compete aggressively with other species that depend on the same food supply.

Others concerned by the invading species are industry, public utilities, and boat owners. Zebra mussels cluster in huge colonies, being anchored themselves to any hard surface. These colonies can clog your water intake pipes of electric and water treatment plants. Fishery specialists are currently casting about and baiting their hooks to gun down control methods that will cause the lowest amount of damage to water supplies and other aquatic species. Two of the alternatives exploring are interrupting the species reproductive cycle and finding a bacterium harmful only to zebra mussels.

(End of Essay)

(Basic Grammar and Usage: Ensuring Grammatical Agreement)

Segment 1

- A. An increasing number of lakes and rivers
- B. An increasingly number of lakes and rivers
- C. A number increasing of lakes and rivers
- D. A number increasingly of lakes and rivers
- E. An increasing of lakes and rivers

(Style: Avoiding Redundancy)

Segment 2

- A. was preyed upon by very few native predators in its new environment.
- B. found very few predators in its new environment.
- C. found very few native predators and was seldom eaten in its new environment.
- D. was preyed on by very few native predator species in its new environment.
- E. was seldom eaten or preyed on by native predator species in its new environment.

(Sentence Structure: Relating Clauses)

Segment 3

- A. Scientists are concerned when the mussels
- B. Scientists are concerned that if the mussels
- C. Scientists are concerned wherein the mussels
- D. Scientists are concerned that the mussels
- E. Scientists are concerned as if the mussels

(Strategy: Making Decisions about Cohesive Devices)

Item 4 (end-of-passage)

The writer wishes to add a sentence at the end of Paragraph 1 that will serve as a transition between Paragraphs 1 and 2 and will establish the main focus of the essay. Which of the following sentences most effectively fulfills that purpose?

- A. The zebra mussel will provide a difficult challenge for public utility managers.
- B. The zebra mussel is only the latest in a series of newly introduced species to thrive in the U.S.
- C. No one knows how far south and west the zebra mussel is likely to spread, but scientists think they may be on the trail of important clues.
- D. Although small in size, the zebra mussel may become a huge problem for pleasure boat owners in North American waterways.
- E. Despite its size, however, the zebra mussel may have a dramatic effect on North American waterways.

Answers:

1. A 2. B 3. D 4. E

Reading Skills Placement

Reading Placement

The Reading Placement Test can help determine if students have the skills to succeed in standard entry-level college courses or if they need developmental reading courses or other instructional support.

Five types of reading comprehension passages are included:

- ?? Practical Reading ?? Social Sciences
- ?? Prose Fiction ?? Natural Sciences
- ?? Humanities

Items have multiple-choice response options. The new format in COMPASS[®] for Windows makes it possible for students to see and read a passage on one side of the screen while the test questions and answer choices are displayed on the other half of the screen.

Sample Humanities Passage: Reading Placement

When I'm in New York but feeling lonely for Wyoming I look for the Western movie ads in the subway. But the men I see in those posters with their stern, humorless looks remind me of no one I know in the West. In our earnestness to romanticize the cowboy we've

ironically disesteemed his true character. If he's "strong and silent" it's because there's probably no one to talk to. If he "rides away into the sunset" it's because he's been on horseback since four in the morning moving cattle and he's trying, fifteen hours later, to get home to his family. If he's "a rugged individualist" he's also part of a team: ranch work is teamwork and even the glorified open-range cowboys of the 1880s rode up and down the Chisholm Trail in the company of twenty or thirty other riders. It's not toughness but "toughing it out" that counts. In other words, this macho, cultural artifact the cowboy has become is simply a man who possesses resilience, patience, and an instinct for survival. "Cowboys are just like a pile of rocks—everything happens to them. They get climbed on, kicked, rained and snowed on, scuffed up by the wind. Their job is 'just to take it,'" one old-timer told me.

Adapted from Gretel Ehrlich, *The Solace of Open Spaces*. ©1985 by Gretel Ehrlich.

(Referring)

1. According to the passage, cowboys are probably "strong and silent" because:
 - A. their work leaves them no time for conversation.
 - B. they have been cautioned not to complain.
 - C. they are stern and humorless.
 - D. there is no one nearby to listen to them.
 - E. their work makes them too tired to talk.

(Reasoning)

2. For which of the following statements does the passage give apparently contradictory evidence?
 - A. The cowboy's work takes endurance.
 - B. Cowboys work alone.
 - C. Cowboys are adequately paid.
 - D. The cowboy's image has become romanticized in American culture.
 - E. Cowboys think of themselves as humorless.

Answers:

1. D

2. B

Sample Practical Reading Passage: Reading Placement

Regular tune-ups of your heating system will cut heating costs and will most likely increase the lifetime and safety of the system. When a service technician performs a tune-up, he or she should test the efficiency of your heating system.

The technician should measure the efficiency of your system both before and after servicing it and provide you with a copy of the results. Combustion efficiency is determined indirectly, based on some of the following tests: 1) temperature of the flue (or chimney); 2) percent carbon dioxide or percent oxygen in the atmosphere; 3) presence of

carbon monoxide in the atmosphere; and 4) draft. Incomplete combustion of fuel is the main contributor to low efficiency. If the technician cannot raise the combustion efficiency up to at least 75% after tuning your heating system, you should consider installing a new system or at least modifying your present system to increase its efficiency.

Adapted from Alex Wilson and John Morrill, *Consumer Guide to Home Energy Savings*. ©1993 by the American Council for an Energy-Efficient Economy.

(Reasoning)

1. The passage suggests that the presence of carbon monoxide in the atmosphere:
 - A. can provide information regarding combustion efficiency.
 - B. is found in 75% of heating systems tested.
 - C. can be reduced by decreasing heating system draft.
 - D. is the main cause of low efficiency in heating systems.
 - E. is more reliable than flue temperature as an indicator of combustion efficiency.

(Referring)

2. According to the passage, when performing a tune-up of a heating system, the service technician should:
 - A. ensure that the combustion efficiency is at least 25%.
 - B. modify the heating system before initially measuring efficiency.
 - C. measure combustion efficiency both before and after servicing the system.
 - D. provide his or her supervisor with a written report of the system's efficiency.
 - E. ignore the age of the heating system.

Answers:

1. A

2. C

These items are not actual items from COMPASS® but are similar in content and format. These items are presented for illustrative purposes and do not constitute a full representation of item content.