

Accuplacer

Placement Testing

Testing Schedule is on Page 4

A Picture I.D. is Required for Admission to Testing.

The Counseling Center is located in the Bailey Building.

Please be advised that personal electronic equipment, food, and beverages are not permitted in the testing center.

Asheville-Buncombe Technical Community College

The Purpose of Testing

Accuplacer Tests were developed by the College Board to provide information about your reading, English, and mathematics skill level. These skills are required for success at A-B Tech. By assessing your ability levels in these areas, we can determine which of our reading, English, and mathematics courses are most appropriate for you.

SAT or ACT Score Submission

Asset, COMPASS, SAT, or ACT scores that are less than three years old and place above a developmental level may be used for placement for all programs except those in Allied Health. You may bring your scores to the Admissions Office, or include them as part of your high school transcript. An advisor in Student Services will use these scores to place you in appropriate courses.

If you are not satisfied with the course placement which results from these scores, Accuplacer testing will be scheduled.

Permission for additional retesting is at the discretion of the professional counseling center staff.

If you have questions concerning testing at A-B Tech, call 254-1921, Ext. 434 or 435.

Types of Tests

Five tests are available: The Reading Comprehension test measures your ability to understand what you read. The Sentence Skills test measures your understanding of how sentences are put together and what makes a sentence complete. There are three mathematics tests: Arithmetic Skills, Elementary Algebra, and College-Level Mathematics. All five tests consist of multiple-choice questions. Listed on the following pages are the appropriate tests for various majors at A-B Tech.

Preparation for Testing

Sample questions are included in this publication for your review. SAT or ACT study guides, which are available at various libraries and bookstores, are also good resources for testing preparation.

Websites available:

www.collegeboard.com/student/testing/accuplacer

www.google.com in the search box type "Accuplacer Practice"

www.onlinecollegeprep.com

www.purplemath.com

Testing Information for Competitive Allied Health Programs

Placement Testing is given for two purposes. First, you may test for placement into math, English, and reading courses. This is typically done before your first semester of coursework. Second, you may test once during the allied health application period annually, if you are seeking admission to an allied health program.

Allied health programs for testing purposes are Dental Assisting, Dental Hygiene, Practical Nursing, Associate Degree Nursing, Radiography, Surgical Technology, and Sonography.

You will be permitted **only one test** during the application period for your chosen program(s). Upon completing the required tests and reviewing results with a counselor/advisor, all **qualifying** applicants **MUST APPLY IN THE ADMISSIONS OFFICE** for their choice of program(s), before the application deadline.

Applications will be accepted from October 1, 2008 through January 30, 2009.

Testing location and the list of times and days that testing is available are on the following page.

For further information about testing, please contact 254-1921, Ext. 434 or 435. For further information about Allied Health Programs, please contact our Admissions Office at Ext. 144, 145, 887 or 210.

To Schedule Testing

You must submit your application to attend A-B Tech to the Admissions Office before you schedule test.

Please visit <http://placementtesting.abtech.edu> to schedule your placement test. Please arrive at the counseling department in the Bailey Building 20 minutes prior to your scheduled test time. Please be aware that failure to arrive 20 minutes prior to test time may result in your seat being given to another student. Providing a distraction-free testing environment is an obligation to our students, so no one will be allowed in the testing room once testing is underway.

Testing Schedule

Monday-Thursday

8:30 a.m.
10:30 a.m.
1:30 p.m.
3:30 p.m.
5:30 p.m.

Friday

8:30 a.m.
10:30 a.m.
1:30 p.m.

Testing is not available on the following dates:

July 4, 2008

September 1, 2008

September 16, 2008

November 27 - 29, 2008

December 24 - 31, 2008

January 1, 2009

Testing for competitive allied health programs is October 1, 2008 through January 30, 2009.

You must present a photo I.D. at the time of testing.

Testing is available by appointment at the Madison Campus, Monday - Friday. Please call 649-2947 to schedule an appointment.

Testing Required for Each Curriculum

Allied Health and Public Service

Associate Degree Nursing, Dental Assisting, Dental Hygiene, Emergency Medical Science, Practical Nursing	Reading, Sentence Skills, and Arithmetic
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Criminal Justice Technology, Early Childhood Associate, Fire Protection Technology A.A.S., Human Services/Social Services concentration, Medical Assisting, Medical Laboratory Technology, Medical Sonography, Radiography, Surgical Technology, Veterinary Medical Technology	Reading, Sentence Skills, Arithmetic, and Elementary Algebra
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Computed Tomography and Magnetic Resonance Imaging, Early Childhood Certificate, Fire Protection Technology Certificate, Teacher Associate A.A.S., Surgical Technology Bridge Program	Reading, Sentence Skills
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BLET, Phlebotomy	Reading
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Engineering and Applied Technology

Automotive Systems Technology A.A.S., CAD Technology, Carpentry, Civil Engineering Technology, Computer Engineering Technology, Construction Management A.A.S., Electrical/Electronics Technology A.A.S., Electronics Engineering Technology, Heavy Equipment and Transport Technology A.A.S., Machining Technology A.A.S., Mechanical Engineering Technology, Surveying Technology, Welding Technology	Reading, Sentence Skills, Arithmetic, and Elementary Algebra
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Automotive Systems Technology Diploma, Air Conditioning, Heating and Refrigeration A.A.S., Carpentry, Electrical/Electronics Technology Diploma, Heavy Equipment and Transport Technology Diploma, Industrial Systems Technology, Machining Technology Diploma, Welding	Reading, Arithmetic, and Sentence Skills
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Air Conditioning, Heating and Refrigeration Diploma	Reading and Math
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Business and Hospitality Education

Accounting, Baking and Pastry Arts, Business Administration, Marketing and Retailing, Computer Information Technology, Cosmetology A.A.S., Culinary, Digital Media, Hotel and Restaurant Management, Entrepreneurship, Human Resources Management, Information Systems Security, Networking Technology, Office Systems Technology A.A.S., Resort and Spa Management, Therapeutic Massage

Reading, Sentence Skills, Arithmetic, and Elementary Algebra

Real Estate Fundamentals

Reading, Arithmetic

Medical Transcription, Medical Office Administration, Medical Coding (certificate), Office Systems Technology Diploma

Reading, Sentence Skills

Cosmetology Diploma

Reading

Arts and Sciences

Associate in Arts and Associate in Science, Fine Arts, General Occupational Technology, Biotechnology

Reading, Sentence Skills, Arithmetic, and Elementary Algebra

Other - Certificates

AirConditioning, Heating, and Refrigeration - 3 levels, Electrical Wiring, Personal Computer and Network Maintenance

Reading and Math

Geographic Information Systems, Survey Fundamentals, Web Programmer

Reading, Math, and Algebra

Test Administration

You will need approximately $1\frac{1}{2}$ hours to take the tests. The tests are administered on a personal computer. You will read the instructions and questions on the computer screen and mark your answers using the computer keyboard or mouse. You will have scrap paper for working mathematical problems. Relax, the testing format is very simple!

A picture I.D. will be required at the time of testing.

Score Reporting

When you have completed all the tests, you will receive a printed report of your scores called your “ Placement Informantion” (PI form). This form will list the English and math courses you will take for your major, as well as any refresher courses to prepare you for the English and math in your major.

Special Arrangements for Students with Disabilities

If you have a disability (permanent or temporary) that will affect taking the tests under standard conditions, you should inform the A-B Tech testing administrator **before** taking the test. Reasonable accommodations will be provided with appropriate documentation of disability. Documentation must be presented to the Disability Services Coordinator.

Test Regulations

Personal electronic equipment, food, beverages, textbooks, notebooks, dictionaries, calculators, or other papers are not allowed in the testing room. Other students will be testing at the same time and you may not talk to each other for any reason. **Talking with anyone other than the test administrator may result in cancellation of your scores.** (Because each test taker will have a different test, it is unlikely that anyone can help anyone else.) Following the test period, all paper and pencils will be collected. Nothing should be carried out of the testing room.

Confidentiality

Your test scores and the information you provide when taking the tests will be used by A-B Tech for advising and placement purposes. It may also be used by A-B Tech and the College Board for research purposes. If data are used for research purposes, your identity is kept confidential. If you have any questions about the confidentiality of the data you have provided, you should talk to an A-B Tech counselor/advisor.

Computerized Adaptive Testing

Computer-Delivered Testing

The Accuplacer Tests are administered through the use of a personal computer. You will communicate with the computer by using the keyboard and mouse to enter your answers and to supply other information. A monitor connected to the computer will allow you to see instructions, questions, multiple choice options, your responses, and other information presented to you. The test instructions are easy to understand. Entering information is easy. The test administrator can resolve any difficulties that may occur.

Adaptive Testing and Time Allowance

Each test is designed to use adaptive techniques. This means that the computer automatically determines which questions are presented to you based upon your responses to prior questions. This technique “zeros-in” on just the right questions to ask you without being too easy or too difficult. The greater your demonstrated skill level, the more challenging the questions that will be presented to you. We have found that each test section usually takes students approximately 20 minutes to complete. However, you may take as long as you need to complete a test. The tests are not timed. Exception: A total of three hours is allowed for testing for competitive allied health programs.

Answer Every Question

The Accuplacer adapts to your skill level. Questions are chosen for you on the basis of your answers to previous questions. You **must** answer every question when it is first given. **You cannot skip any question or come back later to change an answer.**

You may change your answer on a particular question **only** before continuing onto the next question. Once you enter your response, the answer is accepted. You cannot return to the question.

If you do not know the answer to a question, try to eliminate one or more of the choices that do not seem reasonable, then pick one of the remaining choices.

Descriptions of the Tests

Samples of test questions begin on page 10.

Reading Comprehension

This test is designed to measure how well you are able to understand what you read. It contains 20 questions. Some questions are sentence relationships, in which you must identify how two sentences are related. Other questions refer to reading passages of various lengths. Some passages are 75 words or less, while others are longer. In the Reading Comprehension test, you will be asked to identify ideas, make inferences, read critically, and recognize writer’s strategies.

Read with comprehension short passages that are characterized by:

- uncomplicated ideas

- straightforward presentation

- general proximity of subject matter to everyday experience

Sentence Skills

Two kinds of questions are given in this test. Sentence correction questions ask you to choose a word or phrase to substitute for an underlined portion of a sentence. Construction shift questions ask that a sentence be rewritten in a specific way without changing the meaning. A broad variety of topics is included here. You will be presented a total of 20 questions.

Arithmetic Skills

The Arithmetic Skills test measures your abilities in three primary categories. The first is operations with whole numbers and fractions. The second involves operations with decimals and percents. The last category involves applications and problem solving. A total of 16 questions are asked.

Elementary Algebra

There are also three categories in the Elementary Algebra Test. The first category tests operations with integers and rational numbers. This includes computation with integers and negative rationals, the use of absolute values, and ordering. The second category is operations with algebraic expressions. This tests your abilities in the evaluation of simple formulas and expressions and adding and subtracting monomials and polynomials. Both of these categories include questions about multiplying and dividing monomials and polynomials, the evaluation of positive rational roots and exponents, simplifying algebraic fractions, and factoring. The third category tests abilities in equation solving, inequalities, and word problems. These questions include solving systems of linear equations, solving quadratic equations by factoring, solving verbal problems presented in algebraic context, geometric reasoning, translating written phrases into algebraic expressions, and graphing. Twelve questions will be presented.

College Level Mathematics Test

If you are applying for an Engineering Technology program or the College Transfer program and score very high on the Elementary Algebra Test, you will have the opportunity to take the College Level Mathematics Test (20 questions).

Test Taking Tips

Accuplacer has tests on Reading Comprehension (20 questions), Sentence Skills (20 questions), Arithmetic (16 questions), and Elementary Algebra (12 questions). The tests you take will depend on which curriculum you plan to enter. If you have any questions, ask the testing administrator.

Here are some tips for taking Accuplacer

Most Important: None of the tests are timed, so make sure you don't rush. Take all the time you need to answer the questions.

Read each question very carefully to make sure you understand what is being asked.

Read all choices for answers before picking one.

When having trouble, eliminate as many choices as possible.

On the Reading Comprehension test, read the passage as many times as you need.

On the Sentence Skills test, put your answers back into the whole sentence to see if the sentence then sounds smooth and is logical.

On the Arithmetic and Elementary Algebra tests, try putting your answers back into the original problem.

You cannot go back to previous questions, so make sure you are satisfied with the answers you choose.

Sample Questions

Sample questions are shown below for each of the five Accuplacer tests explained above. Those presented cover only a few areas covered by each test. The correct answers begin on page 20.

Reading Comprehension

Read the statement or passage and then choose the best answer to the question. Answer the question on the basis of what is stated or implied in the statement or passage.

Question 1:

Myths are stories, the products of fertile imagination, sometimes simple, often containing profound truths. They are not meant to be taken too literally. Details may sometimes appear childish, but most myths express a culture's most serious beliefs about human beings, eternity, and God.

The main idea of this passage is that myths

- (A) are created primarily to entertain young children
- (B) are purposely written for the reader who lacks imagination
- (C) provide the reader with a means of escape from reality
- (D) illustrate the values that are considered important to society

Question 2:

In the words of Thomas DeQuincy, "It is notorious that the memory strengthens as you lay burdens upon it." If, like most people, you have trouble recalling the names of those you have just met, try this: the next time you are introduced, plan to remember the names. Say to yourself, "I'll listen carefully; I'll repeat each person's name to be sure I've got it, and I will remember." You'll discover how effective this technique is and probably recall those names for the rest of your life.

The main idea of the paragraph maintains that the memory

- (A) always operates at peak efficiency
- (B) breaks down under great strain
- (C) improves if it is used often
- (D) becomes unreliable if it tires

Question 3:

The ultimate source of energy for all plants and animals is sunlight. But the sun's energy can be harnessed by plants, through photosynthesis, and stored in molecules of carbohydrates. When animals eat these enzymes, large amounts of energy become available. Animals immediately convert this energy into molecules of high-energy ATP (adenosine triphosphate)—the universal currency of energy in living things. Excluding only the very first stages in carbohydrate breakdown, which are called glycolysis, the entire complicated process of energy transfer to ATP takes place within the mitochondria.

Glycolysis refers to

- (A) the initial stages of carbohydrate breakdown
- (B) the process of plants producing oxygen and carbohydrates
- (C) the production of ATP
- (D) the production of body heat which occurs in the mitochondria

Question 4:

Unemployment was the overriding fact of life when Franklin D. Roosevelt became President of the United States on March 4, 1933. An anomaly of the time was that the government did not systematically collect statistics of joblessness; actually it did not start doing so until 1940. The Bureau of Labor Statistics later estimated that 12,830,000 persons were out of work in 1933, about one-fourth of a civilian labor force of more than 51 million.

Roosevelt signed the Federal Emergency Relief Act on May 12, 1933. The President selected Harry L. Hopkins, who headed the New York relief program, to run FERA. A gifted administrator, Hopkins quickly put the program into high gear. He gathered a small staff in Washington and brought the state relief organizations in to the FERA system. While the agency tried to provide all the necessities, food came first. City dwellers usually got an allowance for fuel, and rent for one month was provided in case of eviction. FERA paid for medicine, some doctor bills, but no hospital costs, work relief, sewing rooms, and renovated hand-me-down clothing.

This passage is primarily about

- (A) unemployment in the 1930s
- (B) the effect of unemployment on U.S. families
- (C) President Franklin D. Roosevelt's presidency
- (D) President Roosevelt's FERA program

Question 5:

It is said that a smile is universally understood. And nothing triggers a smile more universally than a taste of sugar. Nearly everyone loves sugar. Infant studies indicate that humans are born with an innate love of sweets. Based on statistics, a lot of people in Great Britain must be smiling, because on average, every man, woman and child in that country consumes 95 pounds of sugar each year.

From this passage it seems safe to conclude that the English

- (A) do not know that too much sugar is unhealthy
- (B) eat desserts at every meal
- (C) are fonder of sweets than most people
- (D) have more cavities than any other people

Question 6:

With varying success, many women around the world today struggle for equal rights. Historically, women have achieved greater equality with men during periods of social adversity. The three following factors initiated the greatest number of improvements for women: violent revolution, world war, and the rigors of pioneering undeveloped land. In all three cases, the essential element that improved the status of women was a shortage of men, which required women to perform many of society's vital tasks.

We can conclude from the information in this passage that

- (A) women today are highly successful in winning equal rights
- (B) only pioneer women have been considered equal to men
- (C) historically, women have only achieved equality through force
- (D) historically, the principle of equality alone has not been enough to secure women equal rights

Two underlined sentences are followed by a question or statement about them. Read each pair of sentences, then choose the best answer to the questions or the best completion of the statement.

Question 7: The Midwest is experiencing its worst drought in 15 years.
Corn and soybean prices are expected to be very high this year.

What does the second sentence do?

- (A) It restates the idea found in the first
- (B) It states an effect
- (C) It gives an example
- (D) It analyzes the statement made in the first

Question 8: There is a lack of quality in our education system.
Her son attends an excellent high school.

What does the second sentence do?

- (A) It gives a cause
- (B) It gives an example
- (C) It makes an exception
- (D) It confirms the first statement

Question 9: Bryan loves playing tennis.
He spends every spare moment on the court.

What does the second sentence do?

- (A) It gives a cause
- (B) It makes a comparison
- (C) It confirms the first sentence
- (D) It makes an exception

Question 10: Tracy is afraid of cats.
She was bitten by a cat when she was a child.

What does the second sentence do?

- (A) It gives a cause
- (B) It gives an example
- (C) It makes an exception
- (D) It confirms the first statement

Question 11: The cost of foreign cars is very high.
Purchases of domestic cars are rising.

What does the second sentence do?

- (A) It gives a cause
- (B) It gives an example
- (C) It makes an exception
- (D) It gives an effect

Question 12: Good weather in Florida resulted in a huge orange crop this year.
The cost of oranges is sure to drop.

What does the second sentence do?

- (A) It makes a recommendation
- (B) It makes a comparison
- (C) It draws a conclusion
- (D) It analyzes the first sentence

Sentence Skills

Select the best version of the underlined part of the sentence. The first choice is the same as the original sentence. If you think the original sentence is best, choose the first answer.

Question 1: After he have raked the leaves, Bob mowed the lawn.

- (A) After he have raked the leaves
- (B) After been having to raked the leaves
- (C) After he would have raked the leaves
- (D) After he had raked the leaves

Question 2: Jim withdrew from society because of a lack of confidence, it was a serious problem to him.

- (A) Jim withdrew from society because of a lack of confidence, it was a serious problem to him.
- (B) Jim's lack of confidence was such a serious problem to him that he withdrew from society.
- (C) A serious problem to Jim was a lack of confidence, and he withdrew from society.
- (D) In Jim there was a serious lack of confidence, so he withdrew from society.

Question 3: Passing by the bank the other morning, a crowd, I noticed, was waiting for the guard to open the doors.

- (A) a crowd, I noticed, was waiting
- (B) a crowd was waiting, I noticed
- (C) I noticed a crowd waiting
- (D) there was I noticed a crowd waiting

Question 4: Walking the dog every night, many people find it pleasant and relaxing.

- (A) Walking the dog every night, many people find it pleasant and relaxing.
- (B) Many people find walking the dog every night pleasant and relaxing.
- (C) Walking the dog every night is found pleasant and relaxing to many people.
- (D) Many people walking the dog every night, this is thought pleasant and relaxing

Question 5: When she was three years old, Tanisha was brought to America, after that she became America's most famous teacher of African history.

- (A) America, after that she became
- (B) America, she became
- (C) America; in time she became
- (D) America to become

Question 6: The number of couples waiting to adopt children is considerably larger than the children available for adoption.

- (A) than the children
- (B) than there are children
- (C) than in terms of children
- (D) than the number of children

Question 7: Because some children are taught by precept rather than by example, this is why they do not adopt their parent's values.

- (A) example, this is why they
- (B) example, they
- (C) example is why they
- (D) example, thus they

Question 8: Ms. Rose planning to teach a course in biology next summer.

- (A) planning
- (B) are planning
- (C) with a plan
- (D) plans

Question 9: Yesterday the President announced that he would retire from political life. to amazed reporters.

- (A) Yesterday the President announced that he would retire from political life, to amazed reporters.
- (B) Yesterday the President announced that he would retire from political life, amazing reporters.
- (C) The President, to the amazement of reporters, announced that he would retire from political life yesterday.
- (D) Yesterday the President announced to amazed reporters that he would retire from political life.

Question 10: When you move out of an apartment before the contract expires, this is an example of breaking a lease.

- (A) When you move out of an apartment before the contract expires, this
- (B) You move out of an apartment before the contract expires, this
- (C) Moving out of an apartment before the contract expires

Rewrite the sentence in your head, following the directions given. Keep in mind that your new sentence should be well written and should have essentially the same meaning as the original sentence.

Question 11: Being a female jockey, she was often interviewed.

Rewrite, beginning with She was often interviewed . . .

The next words will be

- (A) on account of she was
- (B) by her being
- (C) because she was
- (D) being as she was

Question 12: This car at no time has been reliable and it never will be reliable.

Rewrite, beginning with This car has never . . .

The next words will be

- (A) been reliable and never will be
- (B) at any time been reliable and never will be
- (C) shown reliability and never will be
- (D) come close to being reliable and never will be

Question 13: Three composers produced the culmination of the classical era—Mozart, Hayden, and Beethoven.

Rewrite, beginning with Mozart . . .

The new sentence will include

- (A) was the composers
- (B) were the composers who
- (C) were only composers
- (D) were three of the composers who

Question 14: Kelly was driving fast in the rain and her car skidded on a pile of wet leaves.

Rewrite, beginning with Because Kelly was driving fast in the . . .

The next words will be

- (A) rain so her car skidded
- (B) rain, her car skidded
- (C) rain. Her car skidding
- (D) raining, her car

Question 15: Writing a best seller had earned the author a sum of money and had freed him from the necessity of selling his pen for the political purposes of others.

Rewrite, beginning with The author was not obliged . . .

The new sentence will include

- (A) consequently he earned
- (B) because he had earned
- (C) by earning
- (D) as a means of earning

Arithmetic Skills

Solve the following problems and choose your answer from the alternatives given. You may use the paper you have been given for scratchwork.

Question 1: Three people who work full time are to work together on a project, but their total time on the project is to be equivalent to that of only one person working full time. If one of the people is budgeted for $\frac{1}{2}$ of her time to the project and a second person for $\frac{1}{3}$ of his time, what part of the third worker's time should be budgeted to this project?

- (A) $\frac{1}{3}$ (B) $\frac{1}{4}$ (C) $\frac{1}{6}$ (D) $\frac{1}{8}$

Question 2: 12 is what percent of 16?

- (A) 82% (B) 45% (C) 75% (D) 90%

Question 3: If one shirt requires $\frac{2}{3}$ of a yard of cloth, how many shirts can be made from 20 yards of cloth?

- (A) 10 (B) 30 (C) 60 (D) 80

Question 4: $\sqrt{16}$

- (A) .04 (B) 4 (C) .4 (D) .44

Question 5: $6.18 \div 6 =$

- (A) 1.03 (B) 13 (C) .103 (D) 10.3

Question 6: 5.2×3.1 is between

- (A) 15 and 16 (B) 16 and 17 (C) 17 and 18 (D) 18 and 19

Question 7: A plane travels 300 kilometers on Monday, 148 kilometers on Tuesday, and 275 kilometers on Wednesday. How many kilometers did it average per day?

- (A) 280 (B) 241 (C) 233 (D) 267

Question 8: How many fourths are there in 4.8?

- (A) 12 (B) 1.2 (C) 19.2 (D) 16.32

Question 9: $4\frac{1}{5} \times \frac{1}{4} =$

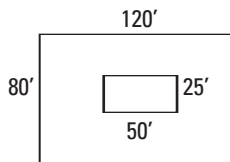
- (A) $\frac{1}{5}$ (B) $16\frac{4}{5}$ (C) $2\frac{1}{20}$ (D) $16\frac{1}{20}$

Question 10: Rod makes \$480 per week, which is 20% more than Jeff makes. How much does Jeff make?

- (A) \$600 (B) \$400 (C) \$450 (D) \$384

Question 11: Mr. and Mrs. Baggett's house sits in the middle of their lot. The lot is rectangular and except for the house, their lot is covered with grass. How many square feet of grass are on the lot?

- (A) 200 (B) 9600
(C) 1250 (D) 8350



Question 12: $\frac{5}{8} - \frac{3}{5} =$

- (A) $\frac{2}{3}$ (B) $\frac{1}{40}$ (C) $\frac{8}{13}$ (D) $\frac{1}{20}$

Question 13: A man has 9 pounds 5 ounces of dog food. How much will he have after his Great Dane eats 5 pounds 8 ounces of it?

- (A) 4 pounds 3 ounces (B) 3 pounds 13 ounces
(C) 3 pounds 7 ounces (D) 14 pounds 12 ounces

Elementary Algebra Skills

On the actual Elementary Algebra test, there will be 12 multiple choice questions. When answering those questions, be careful, take your time, and double check your answers. You will be given pencils and paper, but you cannot use a calculator. This practice packet is not multiple choice, but does cover the topics you could see on the actual test. The answers begin on page 20.

Multiplying Binomials

Question 1: $(x + 2)(x - 3)$

Question 2: $(3x + 2)(5x - 3)$

Question 3: $(a + b)(a - b)$

Question 4: $(9 - x)(9 + x)$

Question 5: $(x + 10)^2$

Absolute Value

Question 6: $|-5| =$

Combining Like Terms

Question 7: $(3x^2 + 2x) + (5x^2 - 3x)$

Exponents

Question 8: $(-2)^5 =$

Question 9: $(-2)^4 =$

Question 10: $(\frac{2}{3})^2 =$

Question 11: $(7x)^2 =$

Question 12: $(\sqrt{x})^2 =$

Question 13: $(2\sqrt{7x})^2 =$

Evaluating Expressions

Question 14: Evaluate $x^2 - 5x - 2$ when $x = 2$

Question 15: Evaluate $\frac{2x^2 + x}{x}$ when $x = -3$

Solving Linear Equations

Question 16: $3x + 4 = 13$ $x =$

Question 17: $5(x - 4) = -5$ $x =$

Formulas

Question 18: $a = 2b + c$ solve for c $c =$

Question 19: $A = \frac{B}{C}$ solve for B $B =$

Question 20: $a = \frac{bh}{2}$ solve for b $b =$

Question 21: $a = b^2$ solve for b $b =$

Question 22: $a = \frac{b^2h}{5}$ solve for b $b =$

Factoring

Question 23: $20x - 5 =$

Question 24: $x^2 - 7x + 12 =$

Question 25: $x^2 - 5x + 6 =$

Question 26: $9x^2 + 42x + 49 =$

Question 27: $25x^2 + 40x + 16 =$

Quadratic Equations

Question 28: $x^2 + 12x + 35 = 0$ $x =$

Question 29: $x^2 - 3x = 0$ $x =$

Question 30: $4x^3 - 32x^2 + 60x = 0$ $x =$

Inequalities

Question 31: solve $x + 4 < 12$

Question 32: solve $2x + 5 > 11$

Question 33: solve $-2x \leq 6$

Question 34: solve $-3x - 4 \geq 5$

Linear Equations in Two Variables

Question 35: Given: $3x + 2y = 12$, if $x = 4$, then $y =$

Question 36: If $x + y = 20$ and $y = 3x$, then $x =$

System of Equations

Question 37: $3x + y = 6$
 $x + 3y = 2$ $x =$

Question 38: $x - 5y = 8$
 $2x - 7y = 11$ $x =$

Radicals

Question 39: $\sqrt{9} =$

Question 40: $\sqrt{80} =$

Question 41: $4\sqrt{7} + 5\sqrt{7} =$

Question 42: $\sqrt{12} + \sqrt{27} =$

Rational Numbers

Question 43: $\frac{1}{G} + \frac{2}{H} =$

Question 44: $\frac{A}{G} + \frac{B}{H} =$

Question 45: $\frac{1}{A} + \frac{2}{2A} =$

Question 46: $\frac{2}{A} + \frac{3}{A^2} =$

Question 47: $\frac{x^2 + x}{x} =$

Question 48: $\frac{GH + H}{H} =$

Complex Fractions

Question 49: $\frac{\frac{x^2}{y}}{\frac{y^2}{x}} =$

Question 50: $\frac{\frac{2}{x} + \frac{3}{x^2}}{\frac{4}{x^2}} =$

College Level Mathematics Skills

Question 1: If $f(x) = x^4 - x + 2$, then $f(-x) =$

Question 2: The equation $x^2 + 2ix - 4 = 0$ has as its roots

Question 3: In Triangle ABC , $a = 12$, $b = 16$ and $\sin B = \frac{2}{3}$.
What is the measure of angle A in degrees?

Answers to Sample Questions

Reading Comprehension

- | | | | |
|------|-------|-------|-------|
| 1. D | 2. C | 3. A | 4. D |
| 5. C | 6. D | 7. B | 8. C |
| 9. C | 10. A | 11. D | 12. C |

Sentence Skills

- | | | | |
|-------|-------|-------|-------|
| 1. D | 2. B | 3. C | 4. B |
| 5. C | 6. D | 7. B | 8. D |
| 9. D | 10. C | 11. C | 12. A |
| 13. B | 14. B | 15. B | |

Arithmetic

- | | | | |
|-------|-------|-------|-------|
| 1. C | 2. C | 3. B | 4. C |
| 5. A | 6. B | 7. B | 8. C |
| 9. C | 10. B | 11. D | 12. B |
| 13. B | | | |

Elementary Algebra

- | | |
|----------------------|--------------------|
| 1. $x^2 - x - 6$ | 2. $15x^2 + x - 6$ |
| 3. $a^2 - b^2$ | 4. $81 - x^2$ |
| 5. $x^2 + 20x + 100$ | 6. 5 |
| 7. $8x^2 - x$ | 8. -32 |
| 9. 16 | 10. $\frac{4}{9}$ |
| 11. $49x^2$ | 12. x |
| 13. $28x$ | 14. -8 |
| 15. -5 | 16. 3 |
| 17. 3 | 18. $a - 2b$ |

19. AC

20. $\frac{2a}{h}$

21. \sqrt{a}

22. $\sqrt{\frac{5a}{h}}$

23. $5(4x - 1)$

24. $(x - 4)(x - 3)$

25. $(x - 3)(x - 2)$

26. $(3x + 7)^2$

27. $(5x + 4)^2$

28. $-7, -5$

29. $0, 3$

30. $0, 5, 3$

31. $x < 8$

32. $x > 3$

33. $x \geq -3$

34. $x \leq -3$

35. 0

36. 5

37. 2

38. $-\frac{1}{3}$

39. 3

40. $4\sqrt{5}$

41. $9\sqrt{7}$

42. $5\sqrt{3}$

43. $\frac{2G + H}{GH}$

44. $\frac{AH + BG}{GH}$

45. $\frac{2}{A}$

46. $\frac{2A + 3}{A^2}$

47. $x + 1$

48. $G + 1$

49. $\frac{x^3}{y^3}$

50. $\frac{2x + 3}{4}$

College Level Mathematics

1. $x^4 + x + 2$

2. $\sqrt{3} - i, -\sqrt{3} - i$

3. 30

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Directory Of College Services And Offices

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Asheville-Buncombe Technical Community College

340 Victoria Road | Asheville, NC 28801

www.abtech.edu

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