

Math Refresher

WebQuest Description: Garrett College math placement test online refresher

Grade Level: College / Adult

Curriculum: Math

Keywords: math algebra equations college placement test skills

Published On:

Last Modified: 2015-05-14 11:31:57

WebQuest URL: <http://zunal.com/webquest.php?w=286023>

Introduction

Welcome to the Garrett College Online Math Refresher Course. This online resource is supplementary to the Face-To-Face Refresher Courses offered at Garrett College. What is a Refresher Course? Garrett College offers two types of Refresher Courses – face-to-face and online. Courses are designed to help students improve on math, English, and reading skills and course placements before the student's first semester. FACE-TO-FACE REFRESHER COURSES are free or low-cost, one-day courses offered at Garrett College's McHenry Campus through the summer months. Courses provide 5 hours of content instruction, lunch, and placement testing. ONLINE REFRESHER COURSES are free, online, self-paced courses, in the form of a web quest, offered by Garrett College. Students may access and complete an Online Refresher Course from any device with internet connectivity. Once a student has completed the course, he or she may contact the college to schedule placement testing.

Who should take a Refresher Course?

- NEW STUDENTS BEFORE TAKING PLACEMENT TEST:** New students may use the refresher resource to brush-up on skills prior to taking the placement test for the first time. Students may choose to utilize this resource if they feel they will not perform well, are facing test anxiety, or feel they can do better with help up-front.
- NEW STUDENTS AFTER ATTEMPTING PLACEMENT TEST (one or more times):** Students wishing to retake the placement test are required to provide evidence of academic intervention before they are permitted to retest. Suggested intervention methods are the face-to-face and online refresher courses. Participating in one of the intervention methods will be the student's "fee" to retake the placement test. To verify this requirement with the online refresher course option, the student must take the quiz at the end of the webquest.

Information on Placement Testing at Garrett College

Garrett College utilizes Accuplacer Next Generation testing platform for placement purposes. Students that do not meet one of the placement exemptions are required to complete the placement assessment prior to registering for classes. If a student is unsatisfied with placement results, he or she may retest after completing an academic intervention method (described above).

DIRECTIONS To navigate through the Online Math Refresher Course, click on the tabs to the left. Within each tab, you will find a variety of notes, resources, tips, formulas, etc. to help you increase your math skills in that area. Read and work through as much of the content as possible to gain the most benefit from this refresher. At the end of this course, you will find two tabs labeled "Quiz Questions" and "Answer Sheet". Use those two areas to complete the QUIZ. Everyone is encouraged to complete the quiz to assess your newly acquired knowledge. ****If you are a student wishing to re-take the placement test, you are REQUIRED to complete the quiz. An advisor will be able to view your score upon completion to determine retest eligibility.**

Process

DECIMALS / FRACTIONS / PERCENTS By either multiplying and dividing, you can quickly convert between decimals, fractions, and percents. See image above as an example.

Tasks

FRACTIONS IN ALGEBRA – Reducing, Adding / Subtracting, Multiplying / Division A fraction consists of two parts: a numerator (the top number) and a denominator (the bottom number). Numerators and denominators are examples of natural numbers. Natural numbers are also called the counting numbers {1, 2, 3, 4, 5, ...}. A mixed number consists of a natural number and a fraction. An improper fraction occurs when the numerator is larger than the denominator.

Evaluation

EXPRESSIONS A combination of variables and numbers using the operations of addition, subtraction, and multiplication/division without an equal sign is known as an expression. To evaluate an expression means to substitute a number in place of a variable and then to simplify as much as possible. To simplify an expression means to combine like terms within the expression and simplify as much as possible. You must follow the order of operations to evaluate and simplify.

VOCABULARY OF EXPRESSIONS

SAMPLE ALGEBRAIC

EXPRESSION: $3x + 12$

Terms: The elements or parts of an algebraic expression that are separated by a plus (+) sign or a minus (-) sign. In the above example $3x$ and 12 are both terms.

Constant Term: A term that only has one number and no variables. 12 is the constant in our example.

Coefficient: The

number that appears before the variable. In the above example 3 and 12 are the coefficients. Yes, the constant is also considered a coefficient. Factors of the Term: In an individual term the factors are each part of that term. In the example, 3 and x are the factors of the first term. Like Terms: Terms that have exactly the same variable factor. There are no like terms in the above example. Consider $7x + 4x + 19$. The $7x$ and $4x$ would be considered like terms.

Category and Score					Score
				Total Score	

Teacher Page

GRAPHING USING SLOPE-INTERCEPT FORM The Slope-Intercept form of the equation of all lines (except vertical lines) is: $y = mx + b$ $m = \text{slope (rise / run)}$ $b = \text{the y-intercept (0, b)}$

Standards

Credits

Other

Conclusion

EQUATIONS In mathematics, a variable is a letter which can represent a variety of different numbers. For example: $p = 2.2k$. This can be used to convert a weight from kilograms (k) to pounds (p). Since you could substitute different numbers in for k it is called a variable. The formula we just looked at is called an equation because it contains an equal sign with something on both sides. A combination of variables and numbers using the operations of addition/subtraction, and multiplication/division without an equal sign or if there is an equal sign, without something on both sides of the equal sign, is known as an expression. If an equation had a solution that means there is a number that could be substituted in place of the variable that would balance each side of the equation.

STEPS TO SOLVING WORD PROBLEMS Read the problem carefully. Underline the facts you will need to solve the problem. Draw a picture, if needed, to help solve the problem. Write a number sentence for the problem using key words. Solve the problem, show your work. Check your answer.

This section will cover the basic rules of exponents as well as the following operations with polynomials: 1. ADDING POLYNOMIALS 2. SUBTRACTING POLYNOMIALS 3. MULTIPLYING POLYNOMIALS 4. DIVIDING POLYNOMIALS Additionally - we will look at FACTORING POLYNOMIALS and using factoring to solve QUADRATIC EQUATIONS!

Basic Information about the Accuplacer Placement Test Accuplacer is an adaptive test. This means that the questions are chosen for you on the basis of your answers to previous questions. This is a multiple choice test. The test is NOT timed. The test requires you to choose an answer to every question - you cannot leave an item blank. You cannot skip a question and go back to it. You cannot go back to any question...ever. Once you click next, you have submitted your final answer to that question. **Test Taking Strategies** Arrive early and prepared. Practice positive thinking. Read the instructions for each question carefully. Instructions change frequently. Read the question without looking at the answers. Use your scrap paper and work out problems to the best of your ability. **Testing Best Practices** If you don't know the answer to the questions: (1) use the process of elimination, (2) eliminate the most obviously incorrect

answers, (3) guess smart. The test is not timed, so: ignore other students completing ahead of you - complete at the best pace for your success. Use scratch paper to write out sentences if you need to see your work. Use scratch paper to work out math problems. Check your answer.

Math Quiz

To Complete the Refresher Quiz: Open attached document below to view the quiz questions. It is recommended that you print this document, if possible. Complete the quiz questions and record your answers. Once you've answered all quiz questions, open the Answer Sheet tab and complete the online answer sheet. Please type your full name at the end of the quiz. After submitting the quiz, call our Testing Center to schedule an Accuplacer Math Placement Test. Testing Center Phone Number: 301-387-3715 Keep studying the material until you take the Accuplacer test. Good Luck! :)

Additional Resources View the additional resources (sites) below for extra help!