WELCOME!

Welcome to CLUES!

- Preparing for the GED can be an emotional and exciting time! At times you may feel this journey is long and challenging, but the most important thing is to keep practicing little by little. By coming to class and working on your own at home, you will see yourself improve.
- Despite everything going on in your life demanding your attention, you still chose to make this a priority. Stay focused- you can do this! This is a just a stepping stone to the rest of your life.

The Four Tests

- **Social Studies:** 70 minutes long, approximately 35 questions
- **Science:** 90 minutes long, approximately 34 questions (2 short answer questions, 10 minutes each)
- **Mathematical Reasoning:** 115 minutes long, approximately 46 questions
- **RLA:** 150 minutes long, approximately 51 questions (1 extended response, 45 minutes)

This term will focus on Math

Mathematical Reasoning

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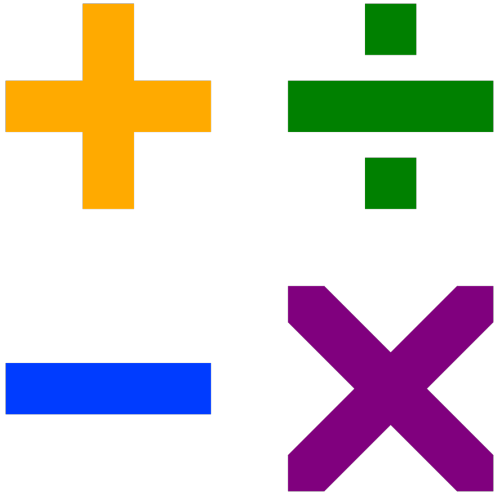
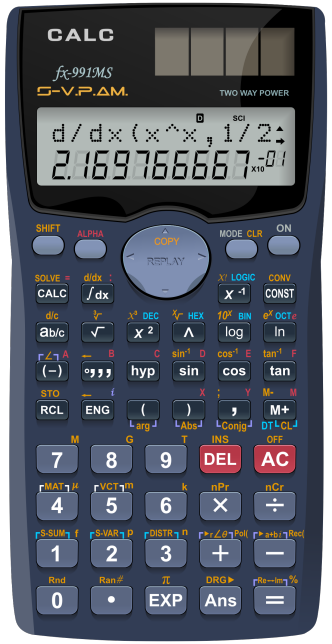
The online Math test may consist of:

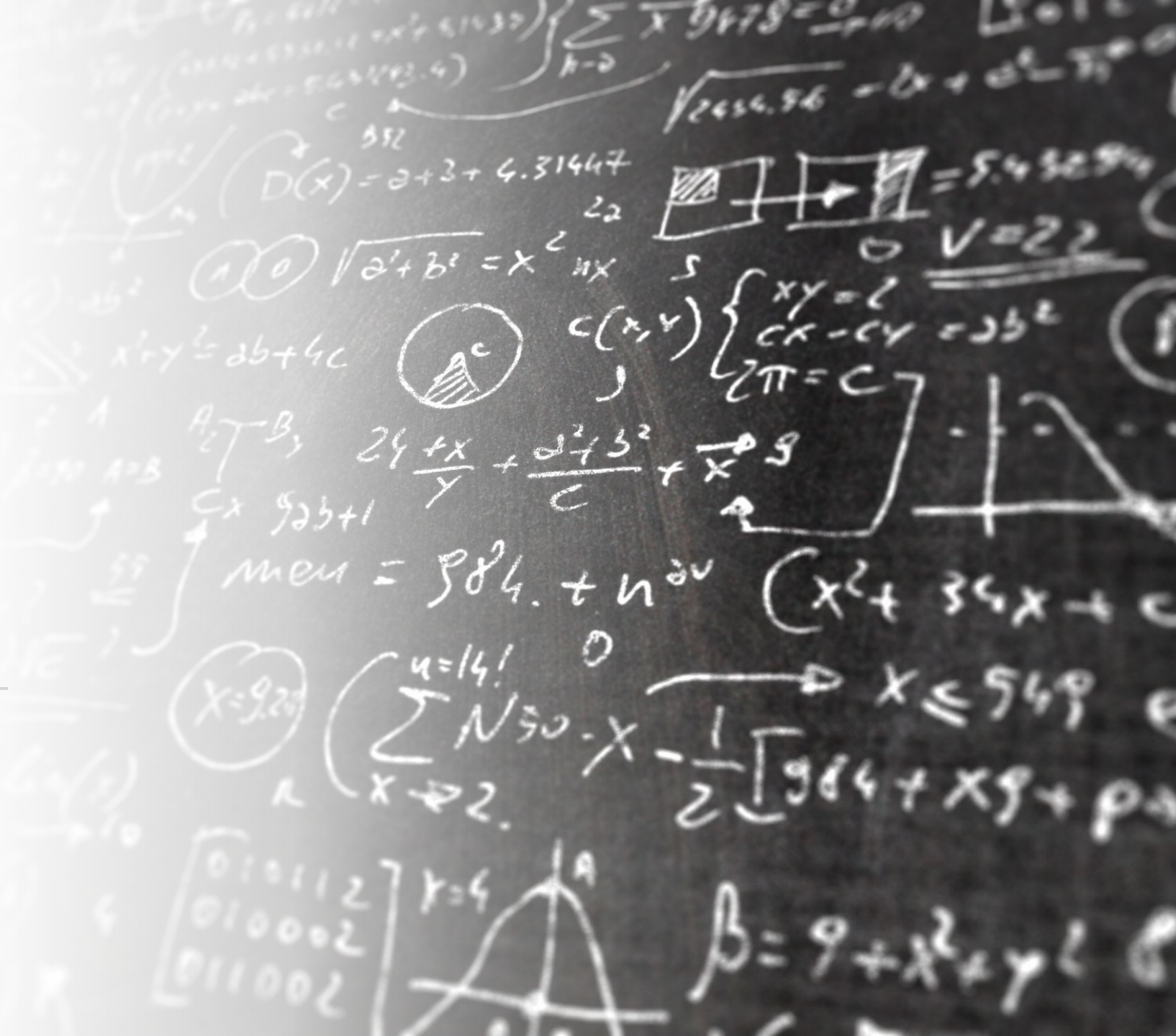
- multiple choice questions
- drag and drop questions
- hot spot questions
- drop down menus, and
- fill-in-the-blank questions





Students will **not be allowed to use a calculator for the first five questions** or so of the exam, but **may use a calculator for the rest of the questions**. Students will be **provided** with a digital calculator onscreen for the exam or can bring a handheld TI-30XS calculator. ***Ask your coordinator or teacher for a calculator prior to testing.***

Overview of Math topics covered in GED



Number Sense

- Whole numbers, fractions, decimals, percents, ratios, exponents, etc.
- Number lines
- Probabilities
- Mean, median, mode, and range

Algebra

- Using variables in math
- Factoring
- Solving equations and inequalities
- Creating equations from written descriptions
- Quadratic equations

Graphing

- Drawing graphs of equations
- Calculating slope and points on graphs
- Perpendicular and parallel lines

Geometry

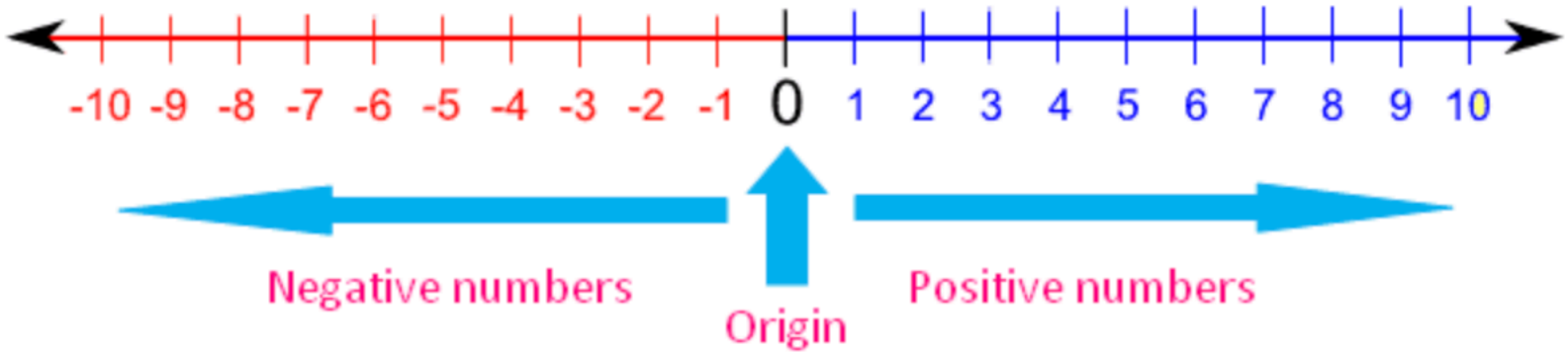
- 2D shapes: squares, triangles, circles, etc.
- 3D shapes: cones, cubes, pyramids, cylinders, etc.
- Angles, perimeter, radius, etc.
- Pythagorean theorem

Intro to Math!

Rational numbers, number lines, fractions, and decimals

Math101: How to Use the Number Line

A number line is a horizontal line that has equally spread number increments. The numbers included on the line will determine how the number on the line can be answered. The question that goes with the number determines how it will be used, for example, plotting a point.



The arrows on the ends of the number line indicate that the numbers continue forever in each direction. A number line can be used to demonstrate the addition, subtraction, division, and times table questions. Also, the number line will help you to understand the concept of negative numbers.

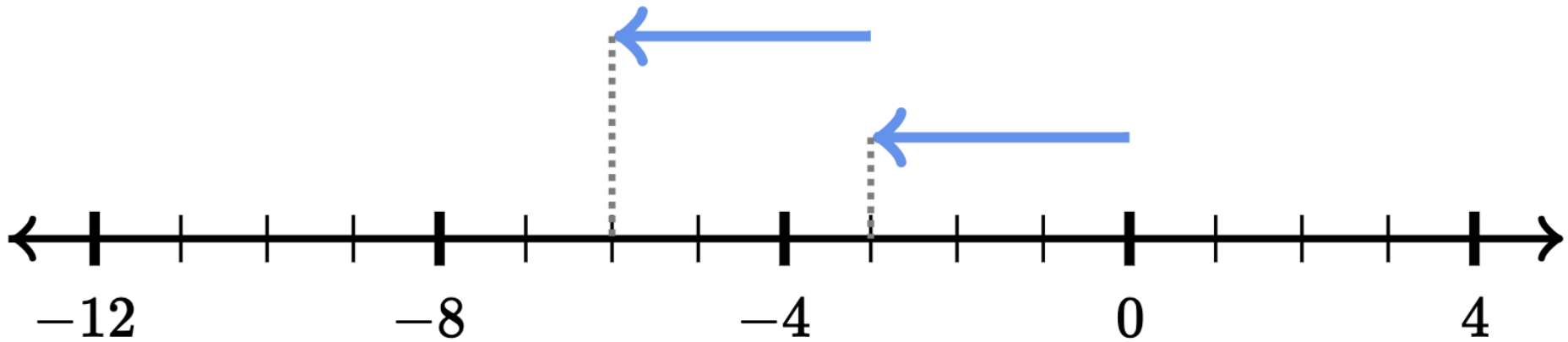
Example 1

Place a dot on the number line to show a number that is greater than 4, but not 6.

Example 2

Show the dots that represent the even numbers that are between 0 and 6.

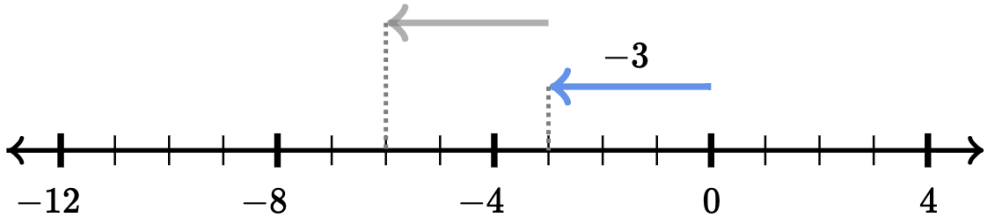
Fill in the blanks to complete the equation that describes the diagram.



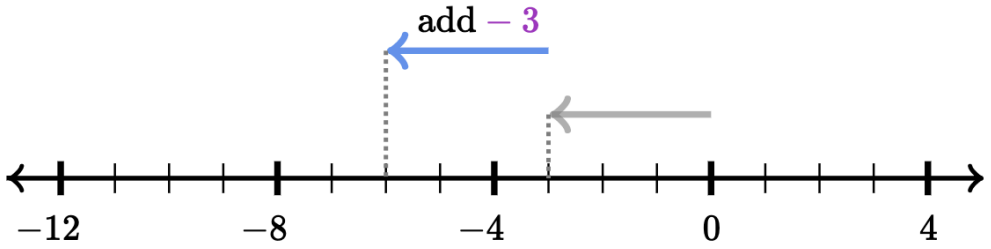
$-3+$ ☐ = ☐

Solution

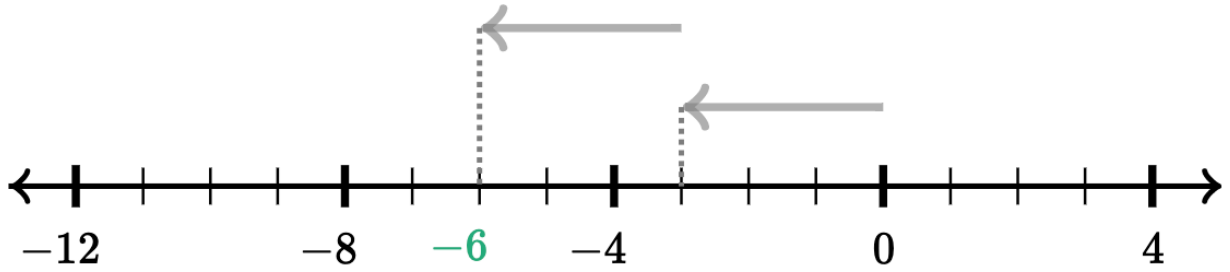
The first term is -3 because the first arrow moves 3 units to the *left* of zero.



The second term is -3 because the second arrow moves 3 units to the *left*, and this is an addition equation.



The solution to the equation is -6 because the second arrow ends at -6.

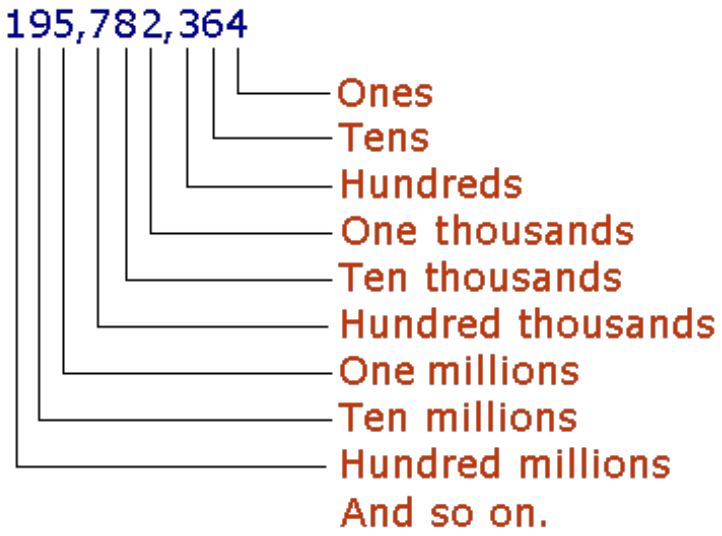


The completed equation is given below.

$$-3 + (-3) = -6$$

What is a whole number?

- A number written with the **digit** 0 through 9
- The **value** of a digit in a whole number depends on its place.
- The value of a whole number is the **sum** of the values of its digits.
- When you write a whole number, place **commas** every three digits counting from the right



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One hundred ninety-five million,
seven hundred eighty-two thousand,
three hundred and sixty-four

When you compare whole numbers, the number with the most digits is greater.

If two numbers have the same number of digits, compare the digits from left to right.

Helpful symbols:

SAME	GREATER THAN	LESS THAN
=	>	<
5 = 5	5 > 4	5 < 6
5 equals 5	5 is greater than 4	5 is less than 6

Practice!

- Carrie needs to round her income to the thousands place. What is $56,832 rounded to the thousands place?

a) $56,000
b) $56,800
c) $56,900
d) $57,000

* The 8 in the hundreds place rounds the 6 thousands to 7 thousands

Practice!

- Michael swam 2,450 yards on Monday, 2,700 yards on Tuesday, and 2,250 yards on Wednesday. What is the order of his daily swim yardage from least to greatest?

a) 2,450; 2,700;2,250
b) 2,250; 2,700; 2,450
c) 2,250; 2,450; 2,700
d) 2,700; 2,450; 2,250

* Since all three yardage numbers of 2,250; 2,450; and 2,700 have equivalent values of 2 in the thousands place, you next must look at the hundreds place to properly sequence them. The proper sequence involves 2,250 with 2 hundreds, 2,450 with 4 hundreds, and 2,700 with 7 hundreds.

Practice!

The table below shows a sporting goods store's monthly sales for the first six months of the year.

- Based on the table, in which months did the store have its highest promotion to increase sales?

a) January
b) February
c) March
d) May

Monthly Sales	
January	$155, 987
February	$150,403
March	$139,605
April	$144,299
May	$149,355
June	$148,260

* In which month might the store want to run a special promotion to increase sales?

March

Whole numbers vs. fractions vs. decimals
What's the difference?

- A fraction shows part of a whole or part of a group by separating two numbers with a fraction bar.
- The bottom number is called the **denominator**. It tells the number of equal parts in a whole; if the denominator is 0, the fraction is undefined.
- The top part is called the **numerator**. It tells the number of equal parts being considered.

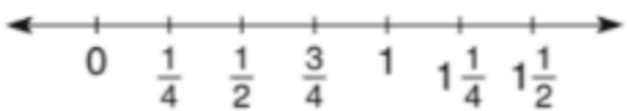
Decimal Notation	Fraction Notation	Word Form
0.5	$\frac{5}{10}$	five tenths
0.34	$\frac{34}{100}$	thirty-four hundredths
0.896	$\frac{896}{1,000}$	eight hundred ninety-six thousandths

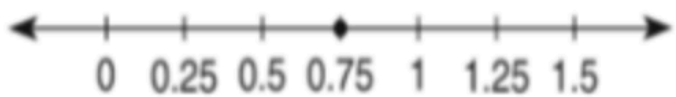
Decimals

- A decimal is another way to write a fraction. It uses the base-ten place value system.
- You can compare and order decimals using place value. Decimals include place values such as tenths, hundredths, and thousandths.
- Decimals can represent numbers much smaller than 1. You can round decimals as you do whole numbers.

Decimals and Fractions on the Number Line

It is very important to understand how to locate mixed fractions, fractions, or decimals on the number line. The number line can represent or use to compare the sizes of numbers. The numbers on the left are smaller than the numbers on the right.





PEMDAS Rules

Evaluate the problem in the following order:

1) **P** - **Parentheses**

2) **E** - **Exponents** (Powers and Square Roots)

3) **MD** - **Multiplication and Division** (Left to Righ

4) **AS** - **Addition and Subtraction** (Left to Right)

You can remember the order by saying :

P	**E**	**M**	**D**	**A**	**S**
a	**x**	**u**	**i**	**d**	**u**
r	**p**	**l**	**v**	**d**	**b**
e	**o**	**t**	**i**	**i**	**t**
n	**n**	**i**	**s**	**t**	**r**
t	**e**	**p**	**i**	**i**	**a**
h	**n**	**l**	**o**	**o**	**c**
e	**t**	**i**	**n**	**n**	**t**
s	**s**	**c**			**i**
e		**a**			**o**
s		**t**			**n**
		i			
		o			
		n			

Order of Operations

1. $(8 \times 2 - 7^2) - 5$

2. $(8 - 4)^2 + (15 \div 3)$

3. $(27 - 3) \div 3 + 4^2$

4. $2 \times (11 - 3) + 5^2$

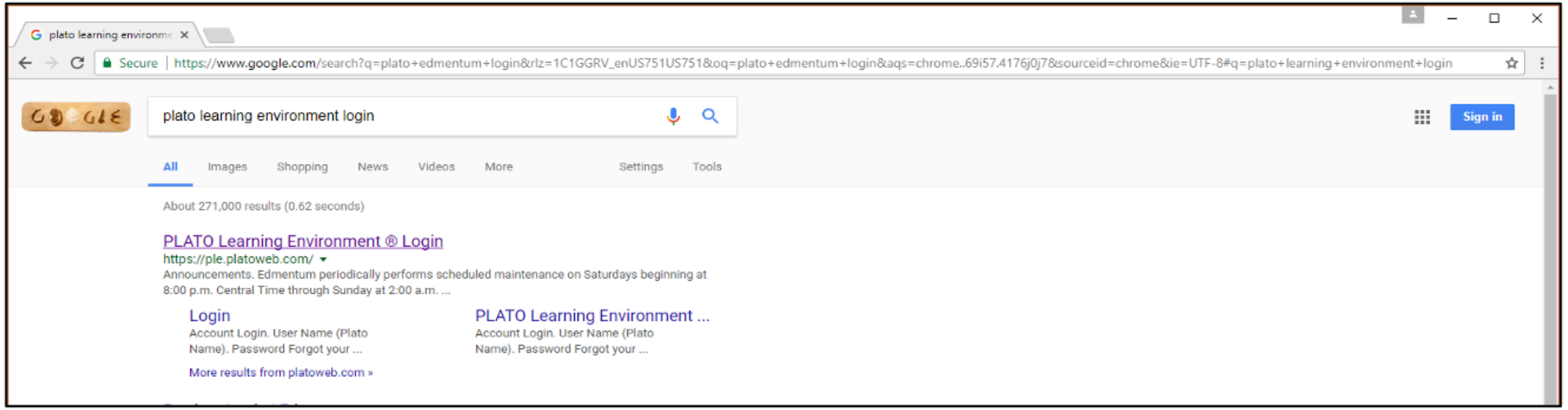
5. $6 \times (8 + 6) - 4^2$

6. $(75 - 5^2) \div (8 + 2)$

Login Instructions for PLATO online GED practice materials

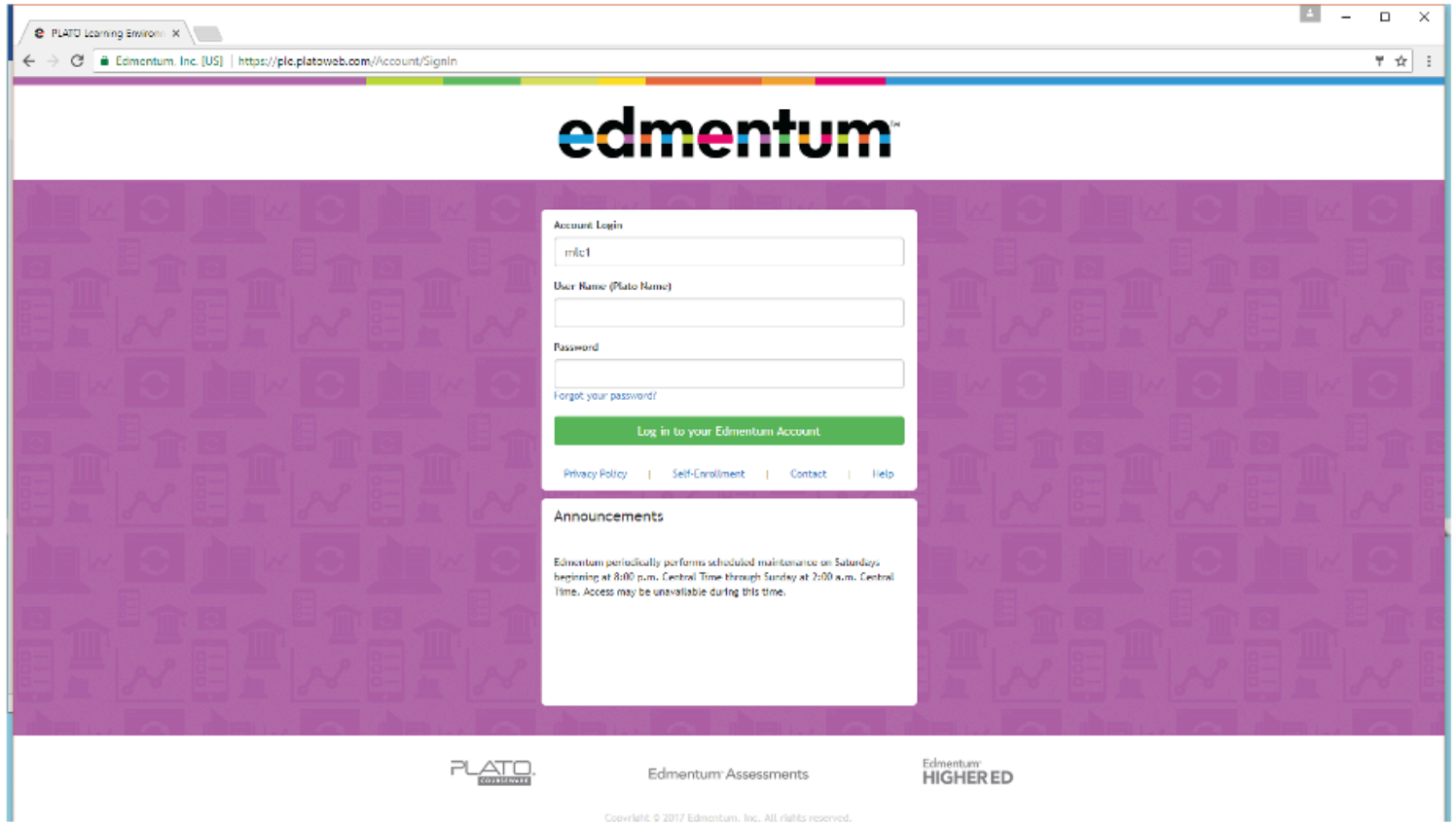
1. On a computer or smartphone, open the internet browser of your choice.
    - Your device must have Flash Player in order to function properly.

2. Search for “PLATO Learning Environment Login”. You should see this result first:



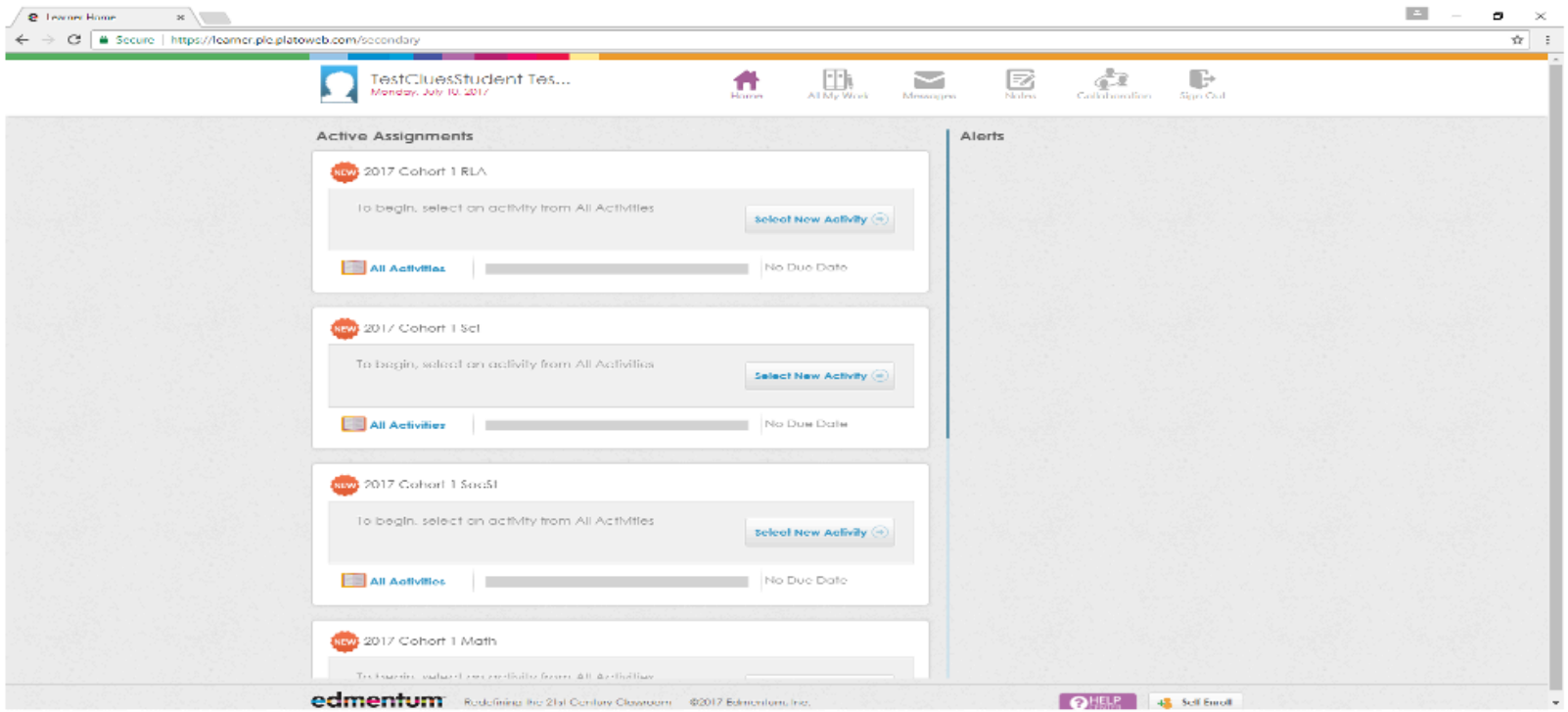
    - Click the link to open the Login page.

3. On the Login page, fill in your information. Your instructor can provide your login information to you:

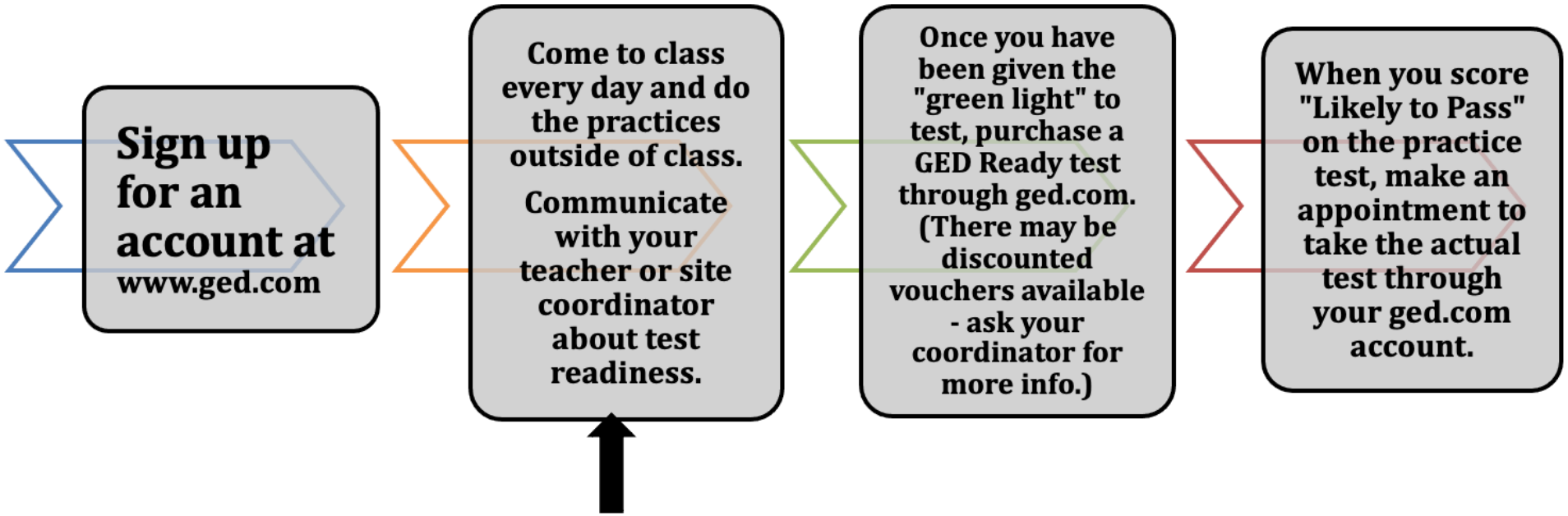


- Account Login: ____mlc1____
- User Name: _____
- Password: _____

4. Once logged in, you should see a listing of the four GED categories. Select the section you want to work on and choose an activity! You should try to practice GED materials outside of class if you have time.



Steps to Getting My GED



NOTE: Practice testing with GED Ready, the official GED practice test, will likely be one of the last steps in your preparation. This means it is even more important to come to class every day to ensure you are learning the necessary skills to pass the test. Testing over and over is not beneficial and does not help you study.

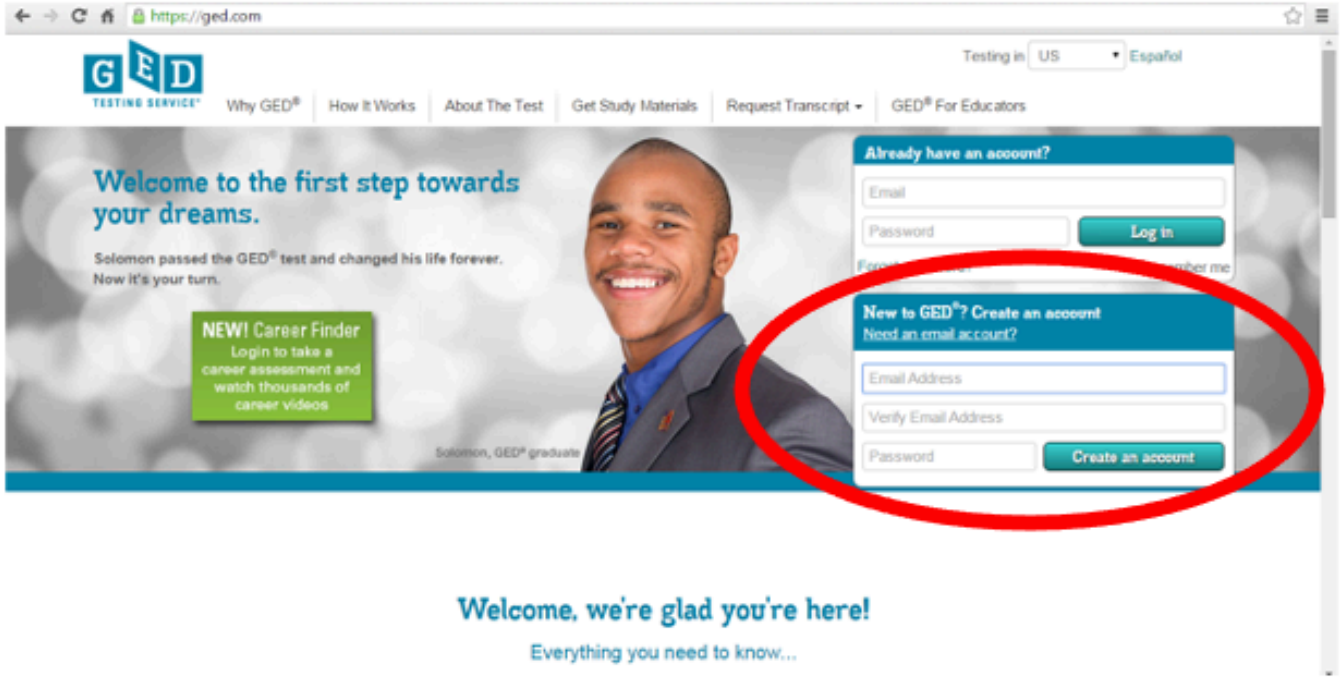
Sign Up for a GED Account

Every GED tester must set up an account with the GED Testing Service. Through this online account, you will:

- take practice tests (GED Ready)
- schedule operational tests
- receive score reports and suggestions for improving test scores
- explore job training, college, and career resources.

Step 1: Go to www.ged.com

Step 2: Enter your email address and create a password for this site.

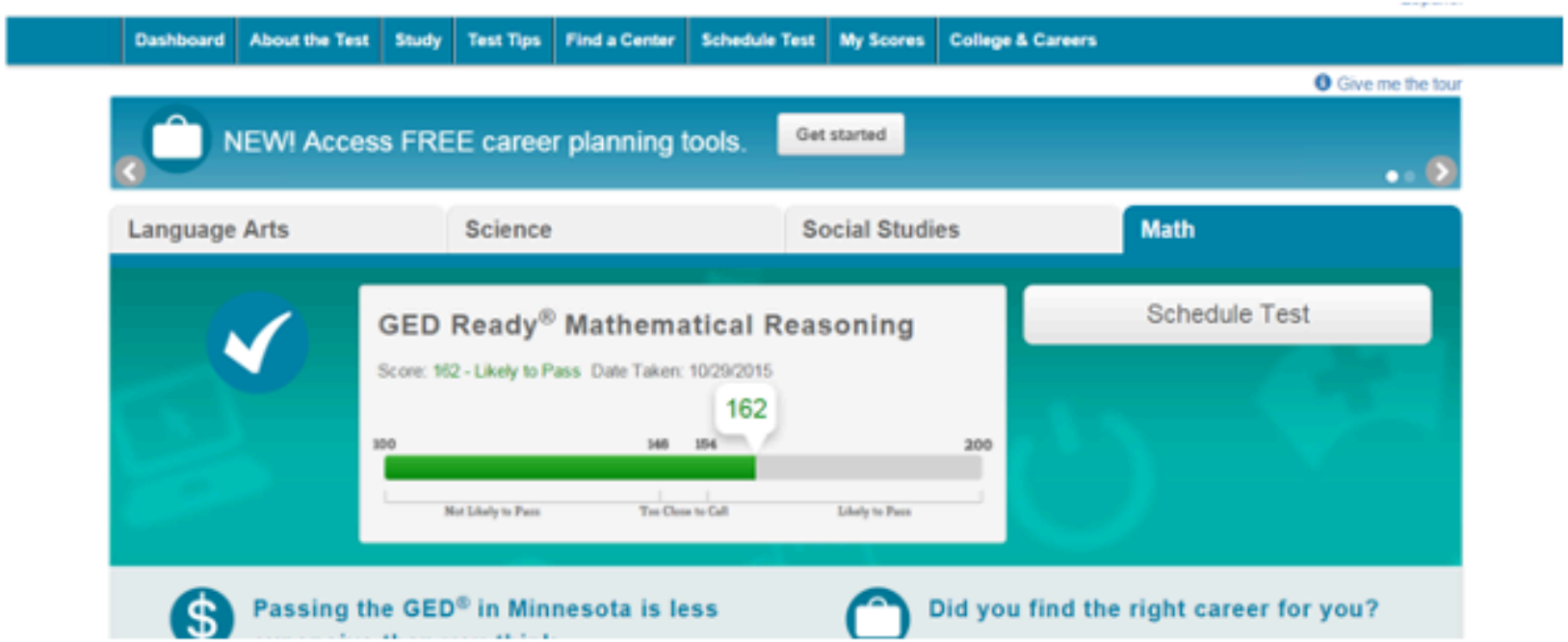


FAQs

Number of Tests	4 Tests Reasoning through Language Arts Mathematical Reasoning Social Studies Science
Cost per Operational Test	$30 per module; Retakes: $10 per module
Cost per Practice Test	$6 – if you pay on your own online (Talk with your coordinator about the possibility of purchasing discounted GED Ready vouchers through CLUES. They may or may not be available.)
Scoring	145 – High School Equivalency 165 – College Ready 175 – College Ready + Credit
Age Waiver Under 19 (at least 17)	Score at least 145 on both the GED Ready RLA test and the GED Ready Mathematical Reasoning test OR Score 650 or better on TABE Reading and Math using only Form A in either the short or long form. ***If you would need an Age Waiver and want more details, please talk to your coordinator**

Step 3: Write your email and password down on your login credential sheet.

Step 4: Answer questions about your personal information and school history. Once you are finished, you will see a dashboard that looks similar to this picture (your scores will appear here once you've taken tests).



You're all set!

Smart Goals

Specific: *What exactly will you accomplish?*

Measurable: *How will you know when you have reached this goal?*

Achievable: *Is achieving this goal realistic with effort and commitment? Have you the resources to achieve this goal? If not, how will you get them?*

Relevant: *Why is this goal significant to your life?*

Timely: *When will this goal be achieved?*