

MY

From Math *Less* To Math Yes

GRADES 8-11

# *Diagnostic Test Audit*



Let's do

*Math Without FEAR*



FromMathLessToMathYES.com

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Your full name \_\_\_\_\_

Grade \_\_\_\_\_

Parent's email \_\_\_\_\_

Your parent's  
name \_\_\_\_\_



# FROM math-less TO math YES ✓

Hi, I'm Ralph!

I'm here to help you crush your fear in math, and improve your math-ability, so you can step into the new school year with confidence.

Ready? Let's do this!

*Ralph*



# Part A

Just a few questions for me to get to know you. **Circle your answers** to help me create an environment of trust that will give you the best results.

Remember that we are here for you, and that your practice with my feedback is the key to your success!

## 1

**Rate your overall feeling toward Math on a scale of 1-10:**

1 - 5

- 1 being "Math is really hard, and I just don't seem to get it."
- 5 being "I need to brush up on math basics, but I usually do okay in Math."

5 - 10

- 10 being "I love Math and I want to challenge myself and get ahead."

1	2	3	4	5	6	7	8	9	10
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## 2

**On a scale of 1 - 10, how comfortable are you in showing your work process: showing your steps and trying to explain why when you get stuck?**

- 1 means "I don't like to show my work at all."
- 10 is "I show every step and now and then will try to explain my thought process in words."

1	2	3	4	5	6	7	8	9	10
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## 3

Put  in the area(s) of Math that you feel you need help.

Fractions.

Solving equations.

Negative numbers.

Order of operations

Factoring.

Exponents.

## 4

In the past, what did your math teachers do to make the subject better for you? What did they do to make it worse? Be as specific as possible.

BETTER

WORSE



# Part B

**While there are numerous resources at your disposal that you could use here, the following diagnostic test is only useful if you limit your answers to what you know.**

**The only reason to take this test** is to **show me (and yourself)** not just what you know, but **more importantly what you don't**, so that together we can develop a plan and work on those areas to get you to improve.

It's ALRIGHT to make mistakes. In fact, I want you to make YOUR mistakes, so that I will know what you need to help you get unstuck in math, and therefore move forward with confidence.

*You will see that this is not a multiple-choice test, and also that some of these questions are more difficult than others.*

Some are in areas that are prerequisite knowledge for Algebra, while others are more within the realm of Algebra itself.

BUT DON'T LET THAT SCARE YOU.  
BE BRAVE AND JUST KEEP GOING.

**Most importantly**, I want to see your process. One might always guess the correct answer using a flawed process, but a solid process will lead you to the correct answer every time.

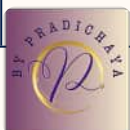
If you are stuck on a problem, try to explain where you are and why you're stuck.

So please show your work for each question.

Once I have received your completed work I will go through it.

We can then turn those Math-*less* areas into Math-**YES**. ✓  
This test should take you no more than 60 minutes: do not spend too long on it!

**I look forward to seeing your work and can't wait to get to know you better through it.**



For questions 1-3, let  $a = 3$ ,  $b = -2$ , and  $c = \frac{1}{2}$ .

1

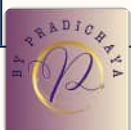
$$3a - 2b \cdot 4c$$

2

$$a(b-c) - 4b$$

3

$$ac - 2b^2$$

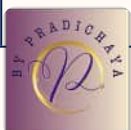


Simplify:

4  $3 - (2 - 8)^2$

5  $8 \div 2 \cdot 3 + 4(-3)^2$

6  $3(2 - (4 - 32(-1 - 3)) + 5) - 8$



MY  
I AIN'T AFRAID OF NO MATH!  
Math Busters!

7  $\frac{1}{2} + \frac{-3}{2}$

8  $\frac{3}{8} - \frac{5}{4}$

9  $\frac{2}{3} + \frac{5}{7}$





10  $\frac{4}{7} \cdot \frac{2}{5}$

11  $\frac{3}{10} \div \frac{8}{9}$

12  $\frac{2}{3} + \frac{3}{4} \cdot \frac{1}{8}$



Solve for x:

**13**

$$3x - 1 = 8$$

**14**

$$2x - 3 = 3(4 - x)$$

**15**

$$3x - 2y = 7$$



Make an  $(x, y)$  table for the following equations, and sketch a graph for each:

16  $y = 2x - 3$



17  $y = 2(x - 3)^2 + 1$



18  $y = -3|x - 1| - 1$



Factor the following expressions:

19

$3x - 21$

20

$x^2 - 3x - 4$

21

$6x^2 + 11x - 7$



**22** An arithmetic sequence begins 1, 4, 7, 10...

**Find:**  
a) the 243rd term  
b) the sum of the first 34 terms, and  
c) the sum of the 17th through 25th terms.

For questions 23–25, simplify the expressions.

**23**  $x^3 \cdot x^4$

**24**  $(p^2q^3)^3$



👉 AND, ONE MORE!

$$25 \sqrt{4x^4}$$

**YOU DID IT!!**

Just one more thing to wrap this up before you bring out the confetti!

**FUN TIME!** (Yes, we math geeks can have fun, too!)

Now that you have come out on the other side of the Diagnostic Test, tell me: **what's your over all experience?**

**Check the box that best represents how you feel!**



**Grrr...  
I don't get it!**



**Yikes!  
I c..a..n't!**



**It's hard, but I'm  
figuring it out!**



**Easy-peasy  
lemon squeezy**



**MATH! YES**

**Do you feel better now about your relationship with math, and why?**

Yes, I feel better. Here's why:

Nah, I feel worse, here's why:



MY

Congratulations on completing the Diagnostic Audit! I know that some - or even all - of the problems may have been difficult, but that's really okay!



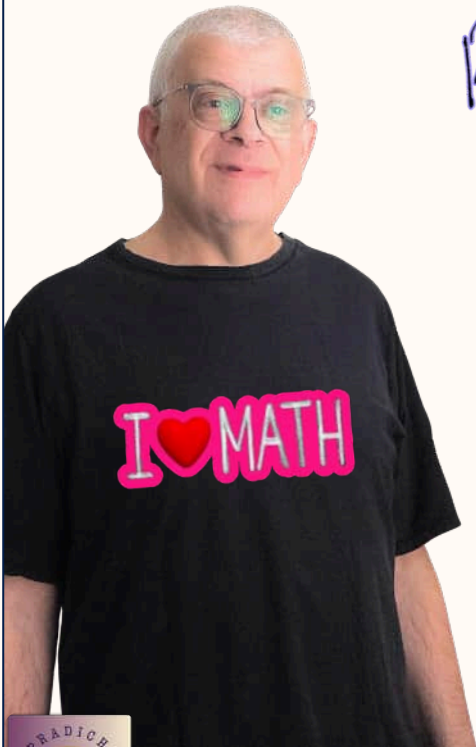
You should be proud of yourself for getting all the way to the end!

You will receive your results in your email that you provided me with at the front of this test booklet, as well as feedback on your strengths and weaknesses.

You will get my advice on what you need to do so it will help you move forward in your math journey.

I hope you are as excited as I am to witness your growth in ability and confidence in math.

Ralph



**COMPLETE THIS TEST AND SEND IT WITHIN 3 DAYS.**

**TAKE A CLEAR PHOTO OF EVERY PAGE, EXCEPT PAGES 1, 5 AND 15. MAKE A ZIP FILE & FOLLOW INSTRUCTIONS IN THE EMAIL YOU'VE RECEIVED FROM PRADICHAYA & ME.**

Before you submit your test, did you remember to write your name on the 2<sup>nd</sup> page?

