Overcome Math Anxiety
Your presenters today are.....

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What is “Math Anxiety”? 
Do I have math anxiety? Identify your issues. 
How do society and my personal experiences affect my attitude about math? 
Why do I need to learn math? 
How will I ever get through a math class? Learn coping strategies to overcome math anxiety!
Math Anxiety: What is It?

Math Anxiety is an emotional reaction that occurs when discussing or participating in mathematics.

Tobias and Weissbrod (1980) defined math anxiety as the panic, helplessness, paralysis, and mental disorganization that arises among some people when they are required to solve a mathematical problem.
A study done at Stamford Medical School showed that increased activity in the fear center of the brain (where anxiety forms) is directly related to reduced functioning in the regions of the brain used for numerical processing (Ahdoot, 2013).

**Anxiety**
- Fight or Flight Response.
- Brain freeze.
- Evolutionary purpose – survival.

**Math Anxiety**
- Fear of math - developed from childhood.
- The evolutionary brain freeze stops numerical processing.
SOLVE THIS PROBLEM

\[ x = \frac{-16 \pm \sqrt{16^2 - 4(3x + 7)}}{2^{32/45} x} \]
Physical Symptoms of Math Anxiety

- Nervous, queasy stomach.
- Lightheaded, shakiness.
- Dry mouth, excessive perspiring.
- Tight muscles, tension, headache.
- Abnormal heart beat.
- Jittery, shakiness.
- Shortness of breath.
Psychological Symptoms of Math Anxiety

- Panic or fear.
- Fight or flight.
- Helplessness.
- Negative self-talk.
- Inability to think/recall.

- Total blank or mental disorganization.
- Feelings of worthlessness.
- Worry.

“I don’t want to be at the mercy of my emotions. I want to use them, to enjoy them, and to dominate them.” ~ Oscar Wilde
Studies show that the mention of math is what triggers the fear; however, when given a math problem, the fear center is no longer stimulated. Therefore, math is a fear, but not an avoidance (Overdeck, 2015; Sisto, 2014).

Math Anxiety “Symptoms” Check

- Test Score.
- Identifying physical and psychological responses to “math”.

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U.S. Societal Acceptance of Aversion to Math

- “I don’t do math”
- "Math class is tough." -- Talking Barbie Doll (1992)
- “Math is boring”
- “Want the people on the plane to stop talking to you – tell them you’re a math teacher” (Sisto, 2014)
- What were your experiences?
Share Your Memories and Feelings

First step to conquering math anxiety:

• You’re not alone.
• Take possession, your math anxiety is not uncommon.
• Explore your history with math.
• Everyone can relate to mathematical embarrassments and difficulties.
Why Learn Math?

• Math uses everyday life
• Keep your memory sharp
• Develop critical thinking skills
• Spatial relationships
Why Learn Math? (continued)

- Jobs: game designers, animator, photographer, fashion designer, business owner, teachers, computer scientists, forensics, life and safety careers, cashiers, construction workers, superintendents, concierge….there is no end.
- Societal understanding – “STEM literate”

“Math isn’t just for the engineers and scientists out there. We all need number sense to make decisions in regular daily life. We’re bombarded with information, but we fail to put those numbers together usefully – and that leads us to make both small mistakes and big ones.” (Overdeck, 2015).
How Will I Ever Get Through A Math Class?

- Constantly builds on itself
- Stay tuned-in to math through practice.
- Apply your past knowledge and the given tools to work toward a solution.
**Class Description:**

**MATH 1040 (5 cr.)** This course provides students with a solid foundation in key algebra skills. Students gain a thorough understanding of algebra concepts through the iterative process of working through a range of problems, including solving and graphing linear, quadratic, and polynomial functions; composing and inverting functions; analyzing rational and radical functions; modeling exponential and logarithmic data; and solving systems of equations and inequalities. Through individual lab work, collaborative activities, and discussions, students in this course cultivate perspectives and analytical skills required for efficient use, appreciation, and understanding of algebraic concepts.

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**Quick Tips for Tackling Math Class**

- **What course should I take? What do I need to know? What if I need extra help?!**
Summary

• Math anxiety – I don’t think so!
• Math is important – we need a cultural change!
• Math is necessary for my success in everyday life.
• I am ready to gain knowledge and skills in math....and I will have FUN 😊 while doing it!

Thank you for joining the Academic Skills Center
Questions?

Attend our next webinar on that covers specific skills to apply inside the classroom to overcome math anxiety.

Thursday, February 16 at 7PM ET

Video links you may enjoy:

Conquering Math Anxiety - The Power of Yay Math: Robert Ahdoot at TEDxAJU

I don't do Math | Emily Calandrelli

Patricia Heaton Fails at Math - Funny - Who Wants to be a Millionaire

Street math | Laura Overdeck | TEDxJerseyCity

Subtract anxiety from your math experience | Michelle Sisto | TEDxIUM
More questions? Stay Informed!

• Current Walden students, e-mail our tutoring team at:
  • AS Ctutoring@Waldenu.edu
• Subscribe to our Facebook & Twitter channels to keep up-to-date on new information, ask questions and share your knowledge.
• Subscribe to our YouTube channel (free!) to have instant access to new tutorials and webinar archives.
• Visit our website for tutorials, event schedules, tutoring services, drop in sessions, courses and workshops.
• Sign up for the Academic Skills Center Student Newsletter - a short monthly newsletter to receive all the latest Academic Skills Center news and updates!
References

AARP. Retrieved from https://stayingsharp.aarp.org/


Appendix
Do you have math anxiety? A Self Review

Take this short questionnaire to determine your level of math anxiety. Rate yourself 1-5 (with 1 being disagree and 5 being agree) on each of the questions below:

1. I cringe when attending a math class.
2. I am uneasy about doing math in front of others.
3. I am afraid to ask questions in math class.
4. I always worry about being called on in math class.
5. I am concerned that future math classes will be too difficult.
6. I zone out in math class.
7. I fear math tests more than any other type of test.
8. I don’t know how to study for math tests.
9. I get it in the classroom, but when I leave, I cannot recall information.
10. I’m afraid I won’t be able to keep up with others or pass a math class.

Check your score:
40-50: you have math anxiety.
30-39: you are fearful of math.
20-29: you are on the fence.
10-19: you may just find math fun.

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