

# Before We Get Started

**Register your attendance.**

Session numbers are in the program.



SCAN HERE FOR  
AUSTIN ROSTERS



UNIVERSITY OF TEXAS  
AT AUSTIN

STEM



# 2024 Student Activity Conference

## Number Sense – A Mental Math Contest

Larry White, state contest director



# How can this be true?

$$15 = 11$$

$$14 = 11$$

$$13 = 11$$

$$12 = 11$$

$$11 = 11$$

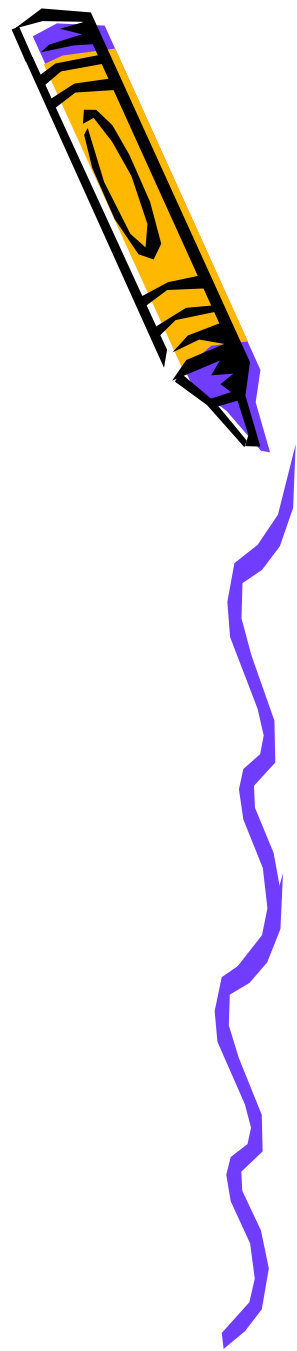
$$15 \text{ base } 6 = 11 \text{ base } 10$$

$$14 \text{ base } 7 = 11 \text{ base } 10$$

$$13 \text{ base } 8 = 11 \text{ base } 10$$

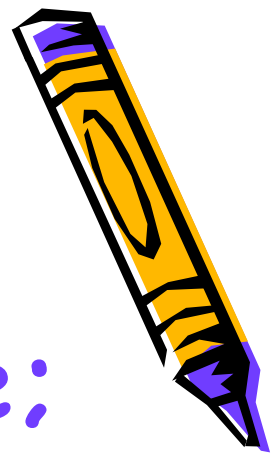
$$12 \text{ base } 9 = 11 \text{ base } 10$$

$$11 \text{ base } 10 = 11 \text{ base } 10$$



# Be sure to ...

- sign in using the QR code;
- clean up your area when you leave;
- and  
"HAVE A GREAT DAY"



# UIL Number Sense Contest

Larry White

Box 25

Millersview, Tx 76862

325-483-5446

[texasmath@centex.net](mailto:texasmath@centex.net)

UIL State Number Sense Contest Director





**NUMBER SENSE - MENTAL MATHEMATICS**  
**A Chronology of the Texas**  
**University Interscholastic League**  
**Number Sense Contest**  
**by Larry White,**  
**UIL State Number Sense Director**



The 278-page **Number Sense Chronology** is finished. It has taken a while. It was a lot of work, but well worth it in my opinion. I hope you will find it as interesting and enjoyable as I did while doing it. There is a link on my UIL number sense page, <https://www.uiltexas.org/academics/stem/number-sense> to download and/or view the chronology. I decided not to publish it or accept any compensation for it. It was just something I wanted to give to UIL for their archives and offer it to anyone interested in the number sense contest, one of the oldest UIL contests. My wife and I have set up an annual TILF scholarship to help two competitors (one girl and one boy) each year as they head to college. You can get the scholarship information from the TILF webpage (<https://www.tilfoundation.org/scholarships/list/>). There is no charge for downloading, viewing, or sharing this chronology, but if you would like to donate to the newly created TILF "Larry and Mona White Number Sense Scholarship," you can do so on the TILF webpage (<https://www.tilfoundation.org/donate/become-a-donor/>). If and when enough donations come in we will be able to add a third or fourth scholarship besides the two my wife and I are giving. I hope you enjoy this chronology.



# Announcements and Test Corrections/Discussions

<https://www.uiltexas.org/academics/stem/number-sense>

Contest rules handbook

Sequence chart

2023-24 and 2024-25 test comments and corrections

Number Sense history and chronology

Misc. announcements





# Tests I will write for this year

- 2024 SAC -- release: Tyler, Houston, Lubbock, & Austin. SAC info and tests will be posted on the UIL web page after the Austin SAC
- TMSCA #6 (UIL C) --- Release: 12/7/24
- UIL A --- Release: 1/10/25-2/01/25
- UIL B --- Release: 2/7/25-3/8/25
- TMSCA #13 (UIL D) --- Release: 3/8/25
- TMSCA State --- Release: 3/15/25
- TMSCA District Warmup --- Release: TBA
- District --- Release: 3/24/25-3/29/25
- Regional --- Release: 4/25/25-4/26/25
- State --- Release: 5/19/25-5/21/25

and 12 HEXCO Practice tests  
(6 Fall 2024 and 6 Spring 2025)





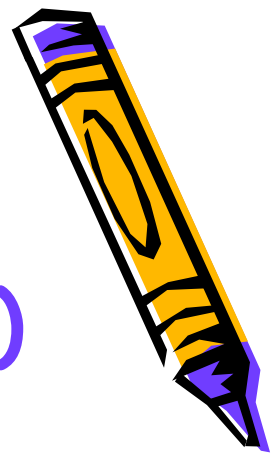
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NUMBER SENSE

Contest Rules



# Rules for Competition



- 80 problems (see sequence chart)
- 10 minutes
- No scratch work - no erasing - no marking over
- + 5 points for each correct answer
- - 4 points for incorrect or skipped (up to the last one attempted)



# Rules for Competition

(continued)



- \* problems (10, 20, 30, ..., 80) are estimation problems (+ or -5% error)
- types of problems --see sequence chart
- Grading and scoring rules are found in the 2024-2025 UIL Number Sense Handbook.





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Mandatory  
Memorization



# Need to Memorize

- First 35 Squares
- First 15 Cubes
- First 10 Square Roots to 3-decimals
- One-zees from  $1/2$  to  $1/12$  and  $1/16$  - percents, fractions, decimal equivalencies
- Roman Numerals
- Remainder Rules-2,3,4,5,6,7,8,9,10,& 11
- Estimation Strategies

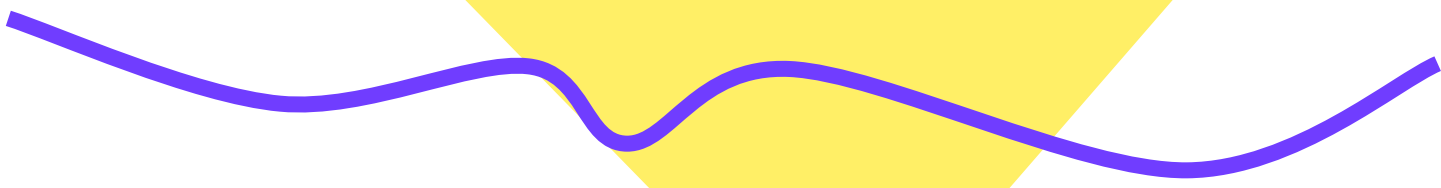




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RESOURCES



# Texas Math & Science Coaches Association

# TMSCA

[www.tmsca.org](http://www.tmsca.org)

**Contact:** Julie Majewski-Smith  
940-563-1005

[execsectmsca@gmail.com](mailto:execsectmsca@gmail.com)

Newsletter - Resource Page - Tests - Forms





# Books and practice materials

*RAM Materials -*

Leo Ramirez ([www.rammaterials.com](http://www.rammaterials.com))

*AMT Test Writing Service*

Andy Zapata ([adzapata74@gmail.com](mailto:adzapata74@gmail.com))

*Middle School and High School Packets*

Dr. John Hobbs (call 972-442-3168)

*Hexco - Linda Terrant*

(<http://www.hexco.com>)



# Practice tests - UIL



<https://store.uiltexas.org/number-sense/>

2011 thru 2019 test packets - can be ordered at no cost - these may become digital downloads soon.

<https://www.uiltexas.org/academics/page/2024-high-school-academic-study-materials>

2020 thru 2024 test packets - free downloads

Note: SAC tests are not available at UIL, but can be available upon request by emailing me.



# Other practice tests

- Texas Math and Science Coaches Association (TMSCA)  
(<http://www.tmsca.org>)
- *RAM Materials* - Leo Ramirez  
([www.rammaterials.com](http://www.rammaterials.com))
- AMT Test Writing Service - Andy Zapata  
([adzapata74@gmail.com](mailto:adzapata74@gmail.com))
- Hexco - Linda Terrant  
(<http://www.hexco.com>)



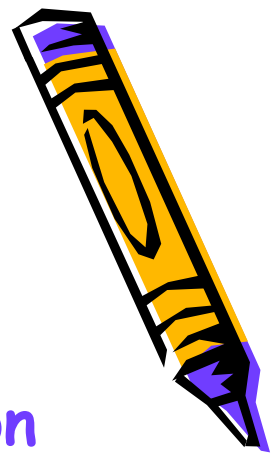
# Computer Software

- Number Sense Computerized -  
by Larry White  
([texasmath@centex.net](mailto:texasmath@centex.net))
- UIL Number Sense Mental Math  
Mentor  
(<http://www.hexco.com>)



# Websites

- UIL - [www.uiltexas.org/academics](http://www.uiltexas.org/academics)
- TMSCA - [www.tmsca.org](http://www.tmsca.org)
- Virtual Challenge Meet - Chuck Thompson  
[www.virtualchallengemeets.com](http://www.virtualchallengemeets.com)
- Number Dojo - [www.numberdojo.com](http://www.numberdojo.com)
- Number Sense Tricks  
<http://bryantheath.com/number-sense-tricks-manual/>
- Math Ninja - Anthony Gillespey  
<http://mathninja.org/math-team/number-sense-video-lesson-and-workbook/>



# More Websites

- Education Academy - *Javiar Garcia & Juan Garcia*  
<https://educationacademy.xyz/home>
- Texas Math Mundo - Saul Cantu  
<https://www.youtube.com/channel/UCDHQCWfSMjNJJS0aJx8jITw/videos>  
<https://discord.gg/2pmuWCpYUa>
- Joe Cuelar - TheNumberSense400@gmail.com  
<https://www.youtube.com/@TheNumberSense/videos>
- Investigative Math - Ayden Gertizer  
<https://www.youtube.com/@investigativemath4965/featured>

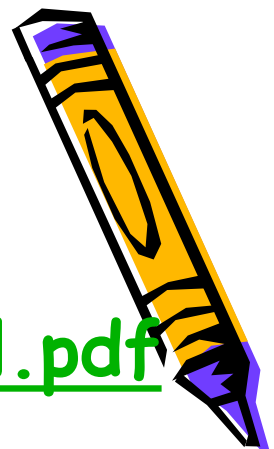


# New Website

- <https://project-sense.vercel.app/manual.pdf>
- <https://project-sense.vercel.app/>

Project Sense - free, comprehensive and unlimited Number Sense training website with features such as individual trick practice, video explanations, multiplayer, AI, leaderboards, etc.

Created by: Henry Tran, Tesfa Taye and Andrew Mi (School for the Talented and Gifted)

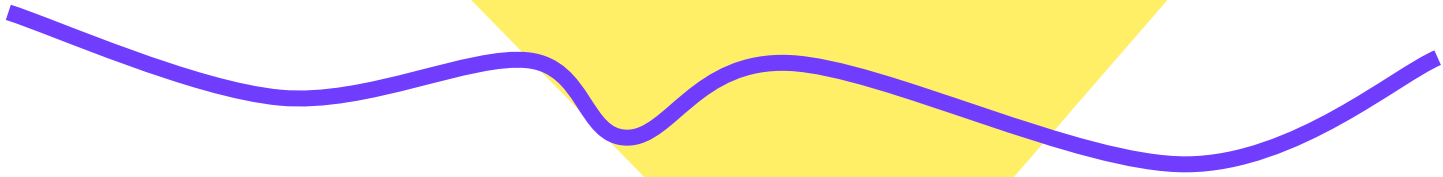




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NUMBER SENSE

Questions & Answers





If you have some questions,  
I have some answers.

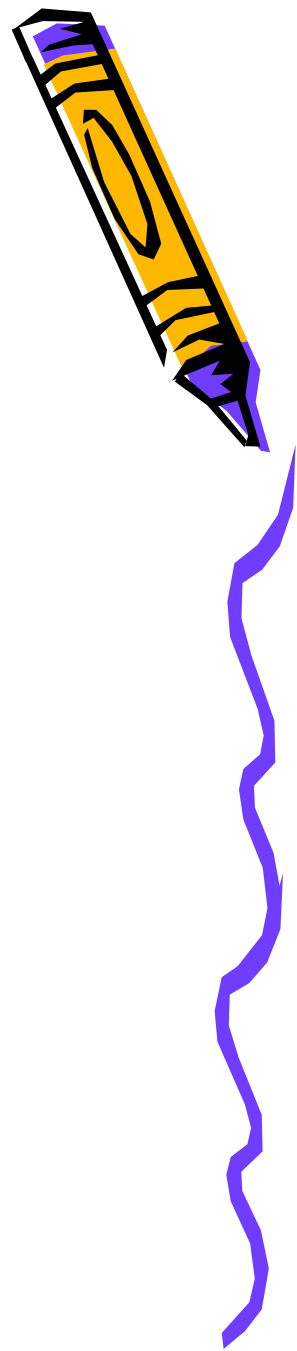
Otherwise, it is  
Time for the

**UIL HS SAC 2024 test**



Why is the number  
10 shaking?

Because 7 8 9 and is still hungry





HAVE A  
GREAT  
DAY!

And remember, number sense is just

MIND OVER "MATH-ER"



Thank you for attending

We value your  
feedback.

Please complete  
conference

evaluation after  
your last session.



Austin Eval



UNIVERSITY OF TEXAS

AT AUSTIN