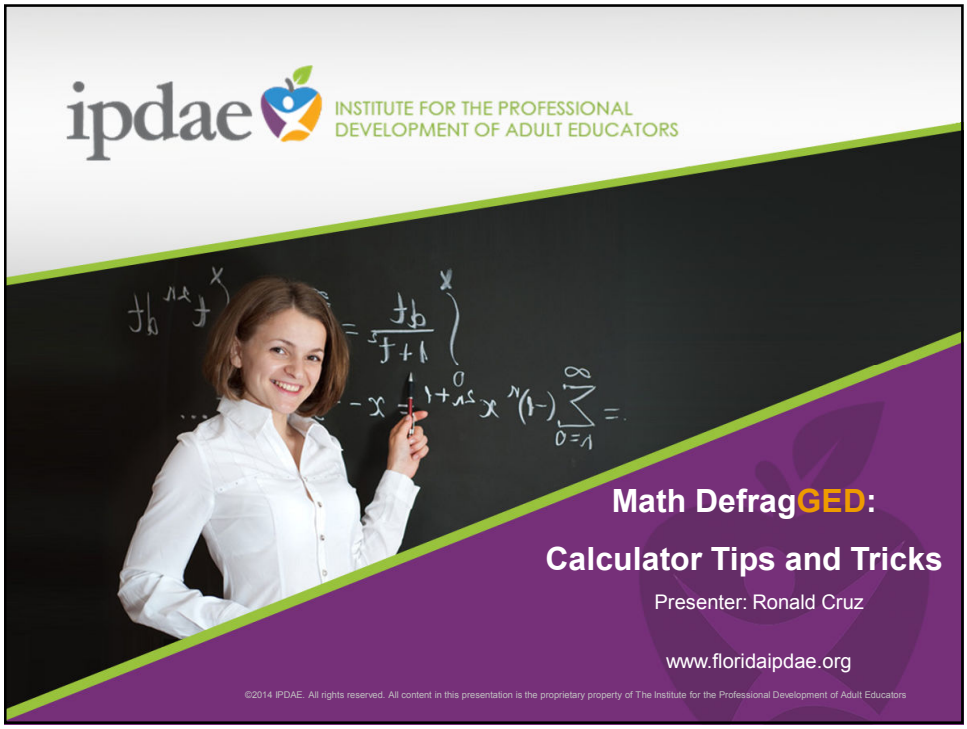
ipdae INSTITUTE FOR THE PROFESSIONAL DEVELOPMENT OF ADULT EDUCATORS



Math DefragGED:

Calculator Tips and Tricks

Presenter: Ronald Cruz

www.floridaipdae.org

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

ipdae BY EDUCATORS FOR EDUCATORS

Facilitator

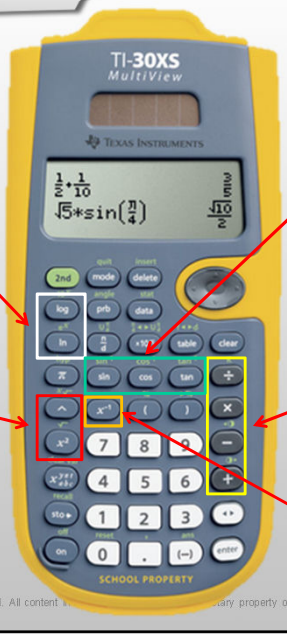
Ronald Cruz

- Administrative Coordinator, CARIBE Refugee Program, Hillsborough County Public Schools Adult Education
- Peer Evaluator
- Department Head
- Mathematics Teacher
- District Master Trainer
- Mentor
- Supervising Teacher
- Robotics Coach

Linkedin:
www.linkedin.com/in/oneroncruz/
Email:
ronald.cruz@live.com

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

Operation Buttons



Logarithmic Functions

Trigonometric Functions

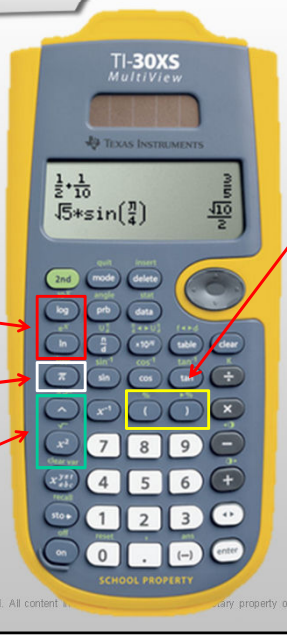
Power Functions

Basic Operations

Inverse Function

©2014 IPDAE. All rights reserved. All content ... property of The Institute for the Professional Development of Adult Educators

2nd Function Operation Buttons



Percent Operations

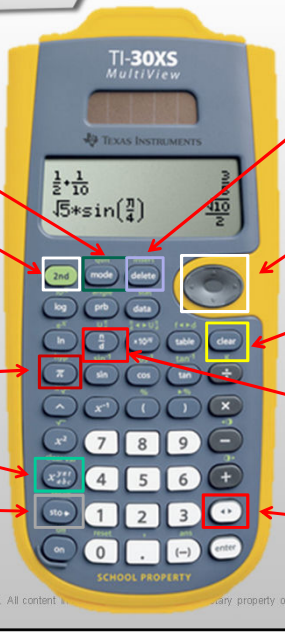
Exponential Functions

Hyperbolic Function

Radical Functions

©2014 IPDAE. All rights reserved. All content ... property of The Institute for the Professional Development of Adult Educators

Special Buttons



Quit

2nd Function

Pi

Variable

Store/ Recall

Delete/ Insert Button

Scroll Buttons

Clear Button

Fraction/ Mixed Number Button

Toggle Button

©2014 IPDAE. All rights reserved. All content ... property of The Institute for the Professional Development of Adult Educators

Tips

What's the difference between delete, clear and insert?

clear	Clears an error message. Clears characters on entry line. Moves the cursor to last entry in history once display is clear. Backs up one screen in applications.
delete	Deletes the character at the cursor.
2nd [insert]	Inserts a character at the cursor.

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

ipdae
BY EDUCATORS FOR EDUCATORS

Last Answer

The TI-30XS Calculator automatically stores the last answer. To recall the last answer simply press

then

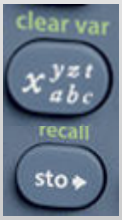
.

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

ipdae
BY EDUCATORS FOR EDUCATORS

Tricks

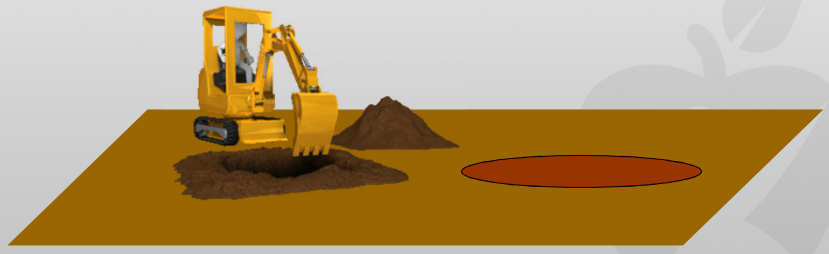
How do we store and recall values?



©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

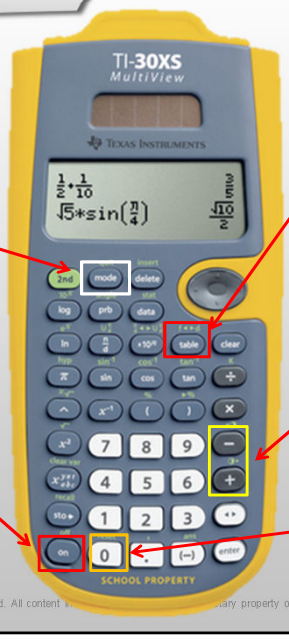
Word Problem

In an excavation site, there were two circular areas to be excavated. One has a radius of 2m while the other has a radius of 4.5m. How much gravel has to be removed from each hole in order to reach a depth of 8m?



©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

Settings Buttons



Mode Button

Table Settings

Power Button

Contrast Buttons

Reset Button

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

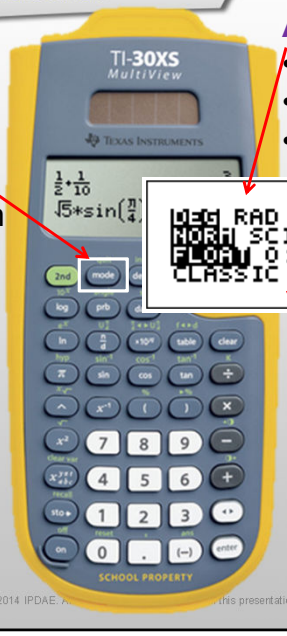
Tips

- Remember to reset the calculator to remove any stored values, lists, settings or equations prior to taking the GED Test.
- Check the mode to see if it is set at default.

- If the display screen is still showing blank after turning-on the calculator check the display contrast.

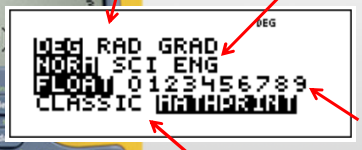
©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

Mode



Mode Button

Angle Modes:
- Degrees
- Radians
- Gradians



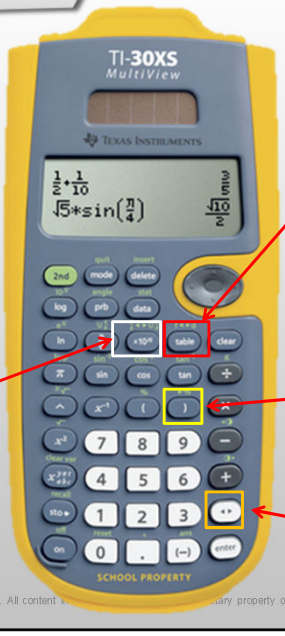
Numeric Notation Modes:
- Normal
- Scientific
- Engineering

Decimal Notation Modes:
- Floating
- Fixed

Display Modes:
- Classic
- Mathprint

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

Conversion Buttons



Decimal Conversion

Mixed Number Conversion

Percent Conversion

Toggle Button

©2014 IPDAE. All rights reserved. All content ... property of The Institute for the Professional Development of Adult Educators

Drill Problems

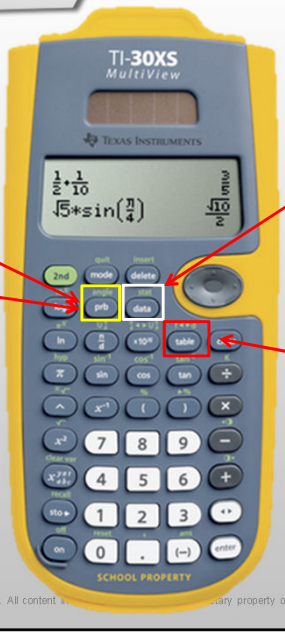
Try out the following:

1. Convert $\frac{3}{5}$ to a decimal.
2. Convert 0.41 to a percent.
3. Convert $\frac{9}{7}$ to a mixed number.
4. Convert $7\frac{5}{8}$ to a decimal and then to an improper fraction.
5. Convert 62% to a decimal.
6. Find the approximate value of $\sqrt{8}$.

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

ipdae
BY EDUCATORS FOR EDUCATORS

Menu Buttons



Angle Menu

Probability Menu

Statistical Menu

Table Menu

©2014 IPDAE. All rights reserved. All content ... property of The Institute for the Professional Development of Adult Educators

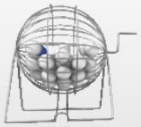
ipdae
BY EDUCATORS FOR EDUCATORS

Questions?

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

The Probability Menu

- nPr – Permutation
  - Selection of objects in a collection where the order is important
- nCr – Combination
  - Selection of objects in a collection where order is irrelevant
- ! – Factorial = nPn
  - Selection of all objects in a collection where the order is important



©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

Word Problems

Try the following problems:

1. In designing your own backsplash, how many ways can you arrange 6 different colored tiles on a strip?

2. Luis has an empty plant box that can hold three plants so he went to Homes R Us to purchase plants. The store has 7 varieties of small plants to choose from. How many ways can Luis select 3 different plants to put in his empty plant box?

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

Scrolling Technique

- Using the scrolling/directional buttons, you can append operations and expressions to previous lines, saving time in having to re-enter.
- This technique is especially useful when used in conjunction with the variable buttons.

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

Constant [K]

[K] is a constant feature in the calculator that stores operations so that each subsequent time enter is pressed, the operation is recalled.

Steps:

1. Press 2nd [K] to turn on.
2. Store any combination of values, operations and numbers. Press enter to save.
3. Each subsequent time enter is pressed, the operation is recalled.
4. Press 2nd [K] again to turn off.

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

ipdae BY EDUCATORS FOR EDUCATORS

Word Problem

Silo Problem:

A farmer has three silos. The largest silo has a diameter of 24 feet. The radius of the smallest silo is one-third as big as the diameter of the largest. The middle-sized silo has a radius that is 2 feet greater than the radius of the smallest silo. What is the circumference of each silo?

14 π
16 π
18 π
20 π
24 π

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

ipdae BY EDUCATORS FOR EDUCATORS

IPDAE Website

Stay tuned to the IPDAE Website
www.floridaipdae.org

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

ipdae
BY EDUCATORS FOR EDUCATORS

Training Evaluation

Please complete the webinar evaluation survey at this time.

surveymonkey.com/r/MMP3LMJ

Quick Scan — Available on the iPhone App Store

ScanLife — Available on the iPhone App Store

QR Droid — Google play

QR Code Reader — Available on the iPhone App Store

Scan — Available on the iPhone App Store

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

ipdae
BY EDUCATORS FOR EDUCATORS

Thank You

ipdae
By Educators For Educators

www.floridaipdae.org

Thank You!

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators

References and Websites

Hanson G., Paskett A., Mankus L., (2008). *TI-30XS multiview ™: A guide for teachers.* Dallas, TX: Texas Instruments Incorporated.

Shmoop Editorial Team. (2015). *Probability and Statistics.* Shmoop University, Inc. Retrieved from http://www.shmoop.com/probability-statistics/factorials-permutations.html

Simmons, B. (2014). *Combinations.* Retrieved from http://www.mathwords.com/c/combination.htm

Steele, A. (2007). *Jumpstarters for math word problems.* Greensboro, NC: Mark Twain Media, Inc.

Texas Instruments (2006). *TI-30XS multiview™ and TI-30XB multiview™ scientific calculator.* Retrieved from https://www.ncc.edu/continuingeducation/pdfs/TASC_TI30XS_Calc_Guide.pdf

Texas Instruments (2008). *TI-30XS multiview™ and TI-30XB multiview™ Activities.* Dallas, TX: Texas Instruments Incorporated.

©2014 IPDAE. All rights reserved. All content in this presentation is the proprietary property of The Institute for the Professional Development of Adult Educators