



PEN-International 研讨会

教授聋人大学生数学: NTID(美国聋人技术学院) 模式

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使用 TI-30X 计算器教课

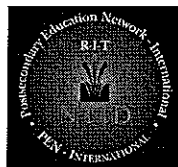
我们为什么喜欢 TI-30X 计算器

- 二次函数功能
- 编辑功能
- 左/右箭头指示 ← → 长表达式
- 上/下箭头指示 ↑ ↓ 带你去前一屏或后一屏
- 分数功能
- 主要的字体 (TI-30X, 以及 TI-83, TI-83Plus) 可在下面网站找到

<ftp://ftp.ti.com/pub/graph-ti/sw-apps/fonts/>

如何用 TI-30X 计算器教课

- 我们使用这种计算器在我们 A 级和 B 级的数学课程中.
- 我们使用在笔记中记录按键输入顺序来解释如何使用计算器.
- 在介绍计算器是我们要求学生写下按键顺序.
- 在学生逐步掌握后我们接收他们的屏幕窗口显示.
- 我们使用 TI-30X 在低级别的课程中, 但它也可被用来计算高级的统计和三角函数的运算中.



A PEN-International Workshop

Teaching Mathematics to Deaf College Students: The NTID Model

Professors Daniele & Carr

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Teaching with the TI-30X Calculator

What We Like About the TI-30X

- 2-line capability
- Editing feature
- Left/right indicator arrows ← → for long expressions
- Up/down indicator arrows ↑ ↓ take you to previous screens and back
- Fraction capabilities
- Key fonts (TI-30X , and also TI-83, TI-83Plus) are available at

<ftp://ftp.ti.com/pub/graph-ti/sw-apps/fonts/>

How We Teach With the TI-30X

- We use these in our level A and some level B mathematics courses.
- We used key sequences in the notes to explain how to use the calculators.
- When introducing the calculator we ask the students to write key sequences.
- As students advance we accept just their window display.
- We use the TI-30X in our lower level courses, but it can also do more advanced statistical and trigonometric computations.

使用 TI-30X IIB 型计算器 [例子]

按键顺序: 在作运算时输入的一系列按键组合.

窗口显示: 显示在计算窗口中内容.

例 1: 计算 $3.12 + 24.5 - 6.7 =$ _____

按键顺序: 3.12 $\boxed{+}$ 24.5 $\boxed{-}$ 6.7 $\boxed{\text{ENTER}}$

- 有些没被显示在窗口中的符号, 被用箭头示意 →
- 你可以左右滚动屏幕, 使用右 $\boxed{\blacktriangleleft}$ 和左 $\boxed{\blacktriangleright}$ 箭头.

修正错误

TI-30X 计算器会保持前一次运算的历史记录.

- 可以按向上的箭头 $\boxed{\blacktriangleup}$ 直到你想要的那一行命令.
- 你可以编辑那行.
- 按 $\boxed{\text{ENTER}}$ 来完成计算.

TI-30X 中的分数功能

例 2: 要在你的计算器中输入 $6/8$, 用:

按键顺序: 6 $\boxed{\text{Ab/c}}$ 8 $\boxed{\text{ENTER}}$

窗口显示:



- 更改成十进制格式, 用按键顺序 $\boxed{2\text{nd}} \boxed{[\text{F}\leftrightarrow\text{D}]} \boxed{\text{ENTER}}$
- 重复按 $\boxed{\text{ENTER}}$ 能来回转换分数和十进制数格式.

USING THE TI-30X IIB CALCULATOR [Some examples]

KEY SEQUENCE: A list of the keys you press to do a calculation.

WINDOW DISPLAY: Shows what is printed in the calculator window.

EXAMPLE 1: To calculate $3.12 + 24.5 - 6.7 =$ _____

KEY SEQUENCE: 3.12 $\boxed{+}$ 24.5 $\boxed{-}$ 6.7 $\boxed{\text{ENTER}}$

- Some symbols that do not all fit in the window, indicated by \rightarrow
- You can scroll right and left, using the right ⏪ and left ⏩ arrow keys.

CORRECTING MISTAKES

The TI-30X keeps a history of previous calculations.

- Press the up arrow ⏪ until you reach the line you want.
- Edit the line if you want to change it.
- Press $\boxed{\text{ENTER}}$ to complete the calculation.

FRACTIONS ON THE TI-30X

EXAMPLE 2: To enter a fraction such as $6/8$ on your calculator, use:

KEY SEQUENCE: 6 $\boxed{\text{Ab/c}}$ 8 $\boxed{\text{ENTER}}$

WINDOW DISPLAY:

6 ⌵ 8	3/4
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- To change that to a decimal, use the key sequence $\boxed{\text{2nd}} \boxed{\text{F} \leftrightarrow \text{D}} \boxed{\text{ENTER}}$
- Repeating $\boxed{\text{ENTER}}$ will switch back and forth between fraction and decimal form.

TI-30X 计算器中的混合数

例 3: 要输入一个混合数比如 $3\frac{1}{4}$ 用:

按键顺序: 3 **[Ab/c]** 1 **[Ab/c]** 4 **[ENTER]**

窗口显示:

3 ▽ 1 ▽ 4
3 ▽ 1/4

例 4: 要计算 $2\frac{3}{4} + 5\frac{1}{3}$ 用:

按键顺序: 2 **[Ab/c]** 3 **[Ab/c]** 4 **[+]** 5 **[Ab/c]** 1 **[Ab/c]** 3 **[ENTER]**

窗口显示:

2 ▽ 3 ▽ 4 [+] 5 ▽ 1 ▽ 3
8 ▽ 1/12

要改变分数的格式, 使用:

按键顺序: **[2nd]** **[Ab/c ↔ d/e]** **[ENTER]**

结果: 97/12

老师指导

这个网站提供免费的 TI-30X 计算器教师指导材料的下载 (7.4 KB PDF 文件格式)
中文:

<http://education.ti.com/us/product/tech/30xiis/guide/30xiisguidech.html>

MIXED NUMBERS ON THE TI-30X

EXAMPLE 3: To enter a mixed number such as $3\frac{1}{4}$ use:

KEY SEQUENCE: 3 $\boxed{\text{Ab}\frac{\text{b}}{\text{c}}}$ 1 $\boxed{\text{Ab}\frac{\text{b}}{\text{c}}}$ 4 $\boxed{\text{ENTER}}$

WINDOW DISPLAY:

3 $\frac{1}{4}$
3 $\frac{1}{4}$

EXAMPLE 4: To compute $2\frac{3}{4} + 5\frac{1}{3}$ use:

KEY SEQUENCE: 2 $\boxed{\text{Ab}\frac{\text{b}}{\text{c}}}$ 3 $\boxed{\text{Ab}\frac{\text{b}}{\text{c}}}$ 4 $\boxed{+}$ 5 $\boxed{\text{Ab}\frac{\text{b}}{\text{c}}}$ 1 $\boxed{\text{Ab}\frac{\text{b}}{\text{c}}}$ 3 $\boxed{\text{ENTER}}$

WINDOW DISPLAY:

2 $\frac{3}{4}$ + 5 $\frac{1}{3}$
8 $\frac{1}{12}$

To change the form of the fraction, use the

KEY SEQUENCE: $\boxed{2\text{nd}}$ $\boxed{\text{Ab}\frac{\text{b}}{\text{c}}\leftrightarrow\text{d}/\text{e}}$ $\boxed{\text{ENTER}}$

RESULT: 97/12

TEACHER'S GUIDE

This site provides a free download of a teacher's guide to the TI-30X (7.4 KB PDF document) in Chinese:

<http://education.ti.com/us/product/tech/30xiis/guide/30xiisguidech.html>