USING THE TI-34 II

Editing a previous entry

Enter: 78 + 56 ÷ 2 =

What did the calculator do?

Find the average of the two grades 78 and 56.

(78 + 56) ÷ 2 =

➢ Use the up arrow to take you back to previous entry.

➢ The 2nd INS will position whatever you enter exactly where the cursor is and will move the entry that was there to the right.

➢ 2nd INS ( ) at appropriate places and press enter again.

DEL deletes the character at the cursor or at the immediate left of the cursor. Hold DEL down to delete all characters to the right.

The next student had a 78 and 63 that you want to average. Use the up arrow and delete and change previous entry.

CLEAR clears characters and error messages.
Pressing **CLEAR** does not affect the memory, statistical registers, or numeric notation.

If you are in the middle of an entry and press **CLEAR** everything to the right will be cleared.

Enter 458963 and suppose you want to get rid of the 963. Put the cursor on top of the 9 and press **CLEAR**

If you pressed **CLEAR** again it would clear the screen entirely.
Use Last Answer (Ans) to calculate \((2+3)^2\)

2+3 Enter

Ans \[x^2\]  In memory: \(\text{Ans} \rightarrow \text{Ans}\)

This variable allows us to do a sequence of calculations without writing intermediate results.

Suppose you went to the grocery store.

You bought 3 cans of pears at $.89/can. How much have you spent so far?

Place 4 tomatoes at $.57 each in your cart. Now how much have you spent?

Now toss in one head of lettuce for $1.22. What is your subtotal now?

Finish your shopping by getting 2 bottles of Fat-free French dressing at $1.89/bottle. What is your total bill?

How much change will you get from $20.00?
USING THE EXPLORER PLUS

Constant Operations:

• Multiplication/Division as repeated addition/substraction:

ON/AC + 7 OP1 0 +

ON/AC - 5 OP2

Let’s practice estimation!

• Adding 15: + 15 OP1

• Multip. by 7, by 12: × 7 OP1

Problem. Practice multiplication by 11 with 2-digit multipliers. ¿Can you see a pattern? Describe it!
METHOD I: Guess & Check

• One player secretly enters an operation and a constant for the other player to guess.

Example: \( \text{ON/AC} \div 25 \text{ OP1 25 OP1} \)

Example: \( \text{ON/AC} \ - 6 \text{ OP1 6 OP1} \)

Find the secret number:

Clues:

I. I am a fraction whose value is between \( \frac{1}{2} \) and \( \frac{3}{4} \)
II. I have a single digit denominator
III. My numerator and denominator are odd
IV. My numerator is a prime number

Solution: \( \frac{3}{5}, \frac{5}{7}, \ y \frac{5}{9} \)
Integer Division:

I. \[79 \text{ Int} \div 24 = \frac{3}{Q} \frac{7}{R}\]

II. How many days, hours, and seconds are there in 100000 seconds?

\[100,000 \text{ INT} \div 60 \text{ INT} \div 60 \text{ INT} \div 24\]

III. Express 1579 using base 6

\[
\frac{1579}{6} \text{ OP1}, \frac{1579}{6} \text{ OP2}, \frac{1579}{6} \text{ OP3}, \frac{1579}{6} \text{ OP4}
\]

Quotients & remainders:

\[(263, 1), (43, 5), (7, 1) y (1, 1): 1579 = 11151_{(6)}\]

To double-check: \[
\frac{1}{6} \text{ OP2}, \frac{1}{6} \text{ OP2}, +, 1, =, \frac{1}{6} \text{ OP2}, +, 1, =, \frac{1}{6} \text{ OP2}, +, 5, =, \frac{1}{6} \text{ OP2}, +, 1, = 1579
\]
The questions we formulate are key in the teaching and discovering process:

Q. Is $22 \times 57 < 500$? (Why?)

Q. Is $\frac{1}{3} + \frac{1}{5} < 1$? (Why?)

Q. Is 37 multiple of 5?  
¿What would you add/subtract to get a multiple?

Ask in context:

- How many 5-candy bags can you make with 29 candies? Do you bag all the candies?

- How many buses are needed to take to the museum the 71 1st grade students in Ms. Smith class, if each bus can accommodate at most 30 students?

- Would you prefer to pay a reduction of 40% of the total price plus 10% of the remaining, or a 30% reduction of the total plus a 20% of what is left?
**Example.** Using mental estimation choose which calculation produce the largest result? Explain.

Case 1:

<table>
<thead>
<tr>
<th>1. $\frac{3}{5} + \frac{1}{2}$</th>
<th>2. $\frac{3}{5} - \frac{1}{2}$</th>
<th>3. $\frac{3}{5} \times \frac{1}{2}$</th>
<th>4. $\frac{3}{5} \div \frac{1}{2}$</th>
</tr>
</thead>
</table>

**Solution.** $\frac{3}{5} \div \frac{1}{2}$

Case 2:

<table>
<thead>
<tr>
<th>1. $\frac{3}{5} + \frac{9}{2}$</th>
<th>2. $\frac{3}{5} - \frac{9}{2}$</th>
<th>3. $\frac{3}{5} \times \frac{9}{2}$</th>
<th>4. $\frac{3}{5} \div \frac{9}{2}$</th>
</tr>
</thead>
</table>

**Solution.** $\frac{3}{5} + \frac{9}{2}$
Exercises.

I) Simplify \( \frac{36}{48} \)

Solution.

\[
\frac{36}{48} \xRightarrow{\text{Simp}} \frac{x}{y} \xRightarrow{\text{Simp}} \frac{3}{4} \xRightarrow{\text{Simp}} \frac{9}{9} \xRightarrow{\text{Simp}} 1
\]

II) Find the \( \gcd(36, 48) \) and the \( \text{lcm}(36, 48) \)

Solution.

\[
\gcd(36, 48) = 2 \times 2 \times 3 = 12
\]

\[
\frac{36}{48} \xrightarrow{\text{Simp}} \frac{3}{4} \Rightarrow \text{lcm}(36, 48) = 3 \times 4 \times 12 = 144
\]

III) Is 97 a prime number?

Solution.

\[
\frac{97}{9} \xRightarrow{\text{Simp}} 1
\]