



# Using the TI-30XS

Smart Tips for Smart Testing

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# The Basics



Key Press History Large Screen

2nd reset  
0

Always start by resetting the calculator.

1. Press the green **2<sup>nd</sup>** key
2. Press **0** (reset)
3. Choose “Yes” (**down, enter OR 2**)

Now, check your calculator

DEG  
MEMORY CLEARED

Clear Key Press History



Key Press History Large Screen

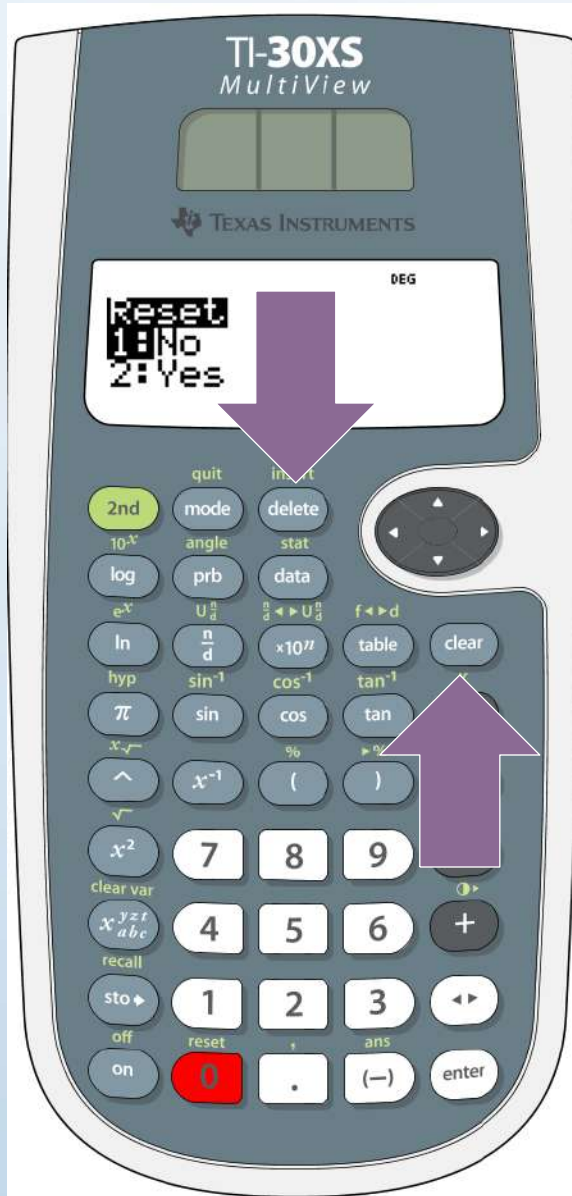
2nd reset  
0

Note: You can clear memory by pressing **on** and **clear** at the same time, BUT this method will not reset the mode of the calculator.

SO...

If your calculator is acting funny, try using the method you just learned.

Clear Key Press History



Key Press History Large Screen

2nd reset  
0

Also

If you make a mistake, just press the **delete** key.

When you finish a problem, press the **clear** key before starting the next.

Clear Key Press History

# Fractions

# FRACTIONS

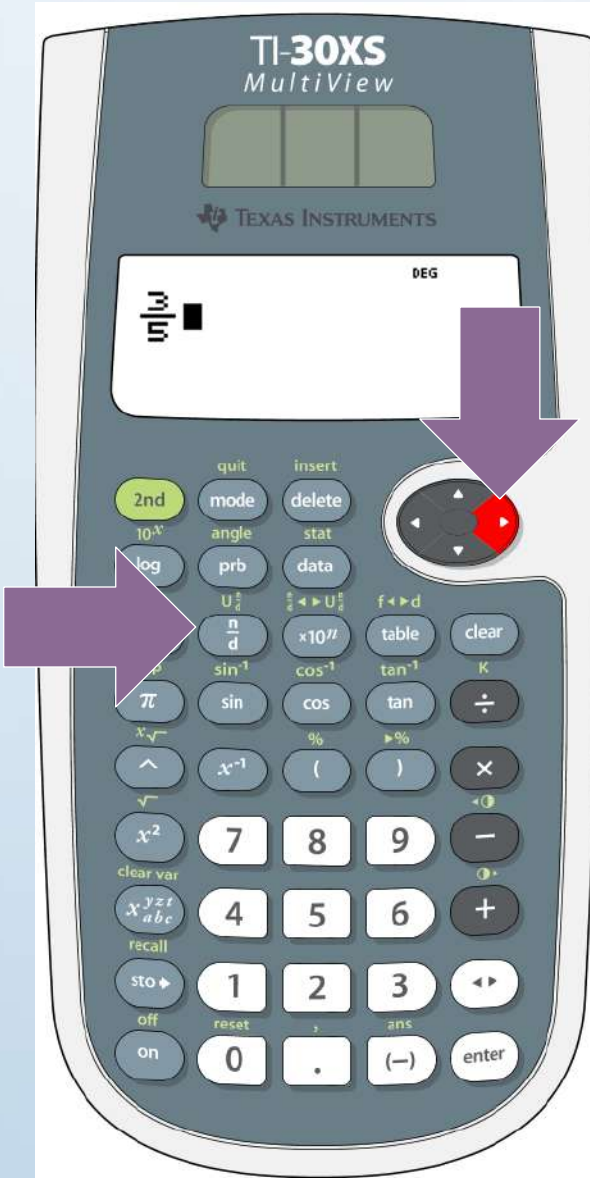
Key Press History Large Screen



Suppose we need to add  $3/5$  and  $3/8$ .

1. Press **3** first (the numerator of the first fraction)
2. Press the **n/d** key
3. Press **5** (the denominator)
4. Now press the **right arrow** on the direction pad

Clear Key Press History



# FRACTIONS

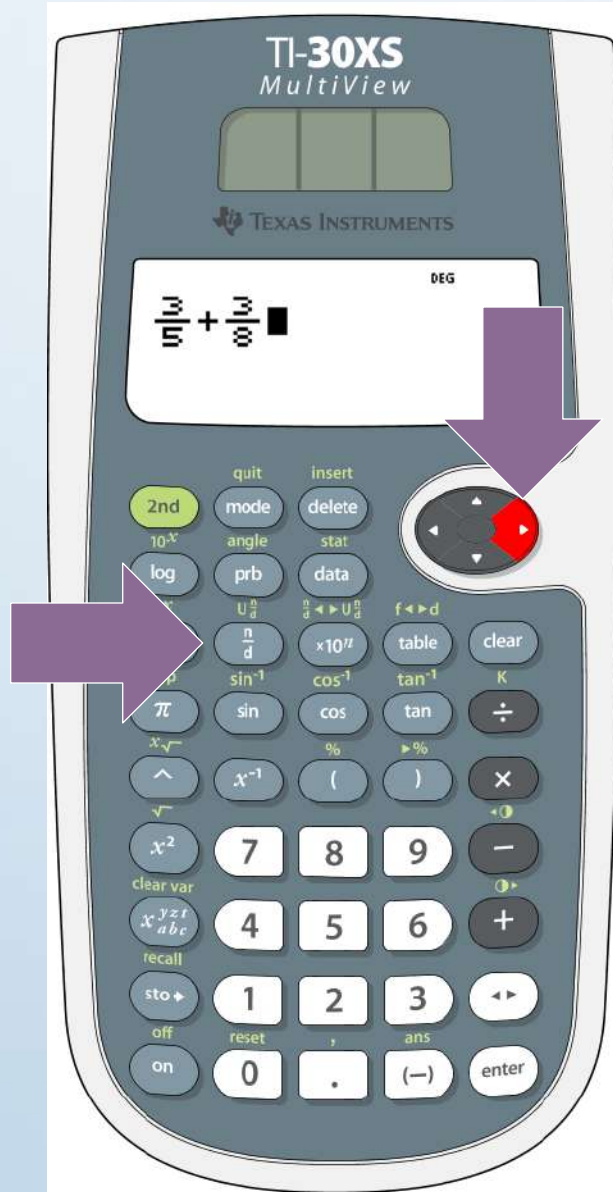
Key Press History Large Screen



Suppose we need to add  $\frac{3}{5}$  and  $\frac{3}{8}$ .

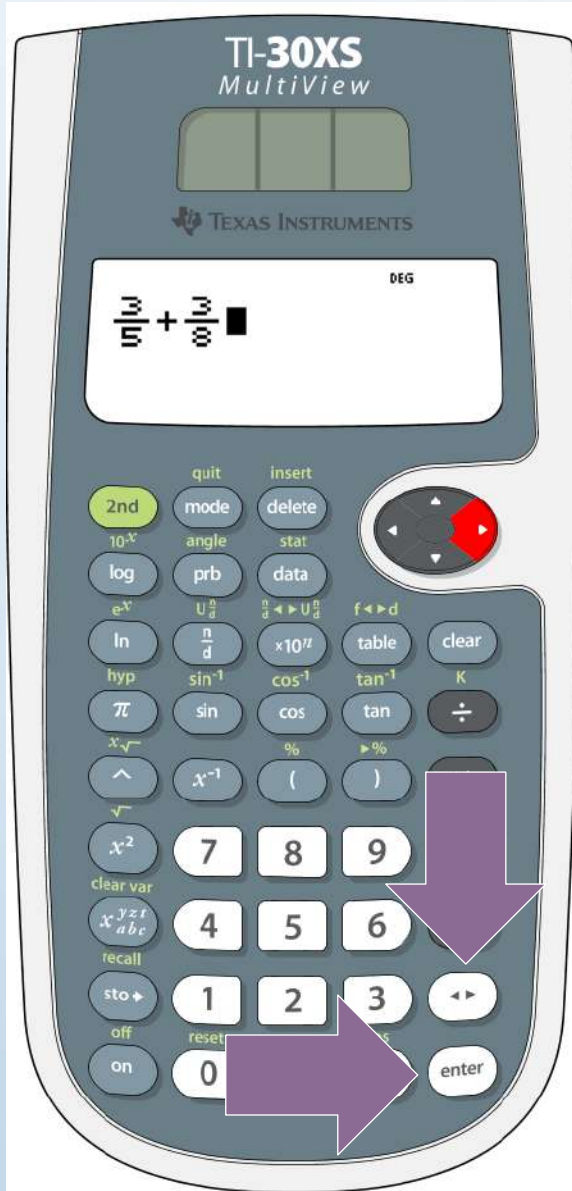
1. Press the **+** key
2. Press **3** first (the numerator of the second fraction)
3. Press the **n/d** key
4. Press **8** (the denominator)
5. Now press the **right arrow** on the direction pad

Clear Key Press History





# FRACTIONS



Key Press History Large Screen

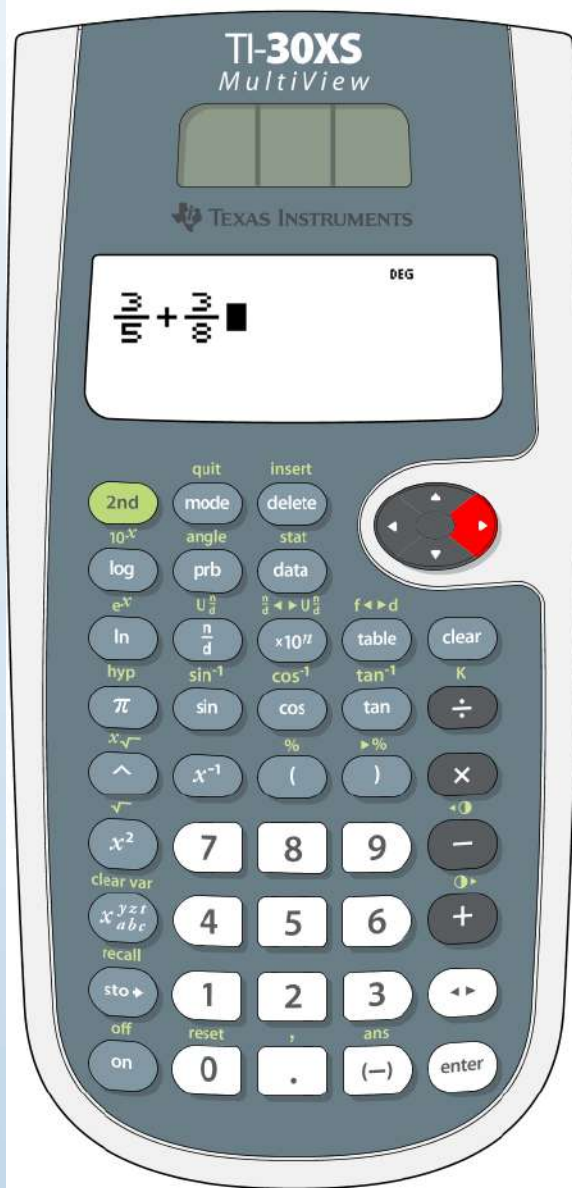
3  $\frac{\square}{\square}$  5  $\frac{\square}{\square}$  + 3  $\frac{\square}{\square}$  8

Suppose we need to add  $\frac{3}{5}$  and  $\frac{3}{8}$ .

1. What happens when we press the **enter** key?
2. Do you see the answer?
3. Now press the ( $\leftrightarrow$ ) key to change to a decimal answer

DEG  $\frac{3}{5} + \frac{3}{8}$   $\frac{39}{40}$

# FRACTIONS



Key Press History Large Screen



Now you try it!

$$\frac{2}{5} - \frac{1}{8}$$

Calculator display showing the fraction  $\frac{2}{5} - \frac{1}{8}$  and the result  $\frac{11}{40}$ .

Calculator display showing the fraction  $\frac{2}{5} - \frac{1}{8}$  and the decimal result 0.275.

$$\frac{3}{4} + \frac{1}{8}$$

Calculator display showing the fraction  $\frac{3}{4} + \frac{1}{8}$  and the result  $\frac{7}{8}$ .

Calculator display showing the fraction  $\frac{3}{4} + \frac{1}{8}$  and the decimal result 0.875.

$$\frac{1}{6} - -\frac{1}{8}$$

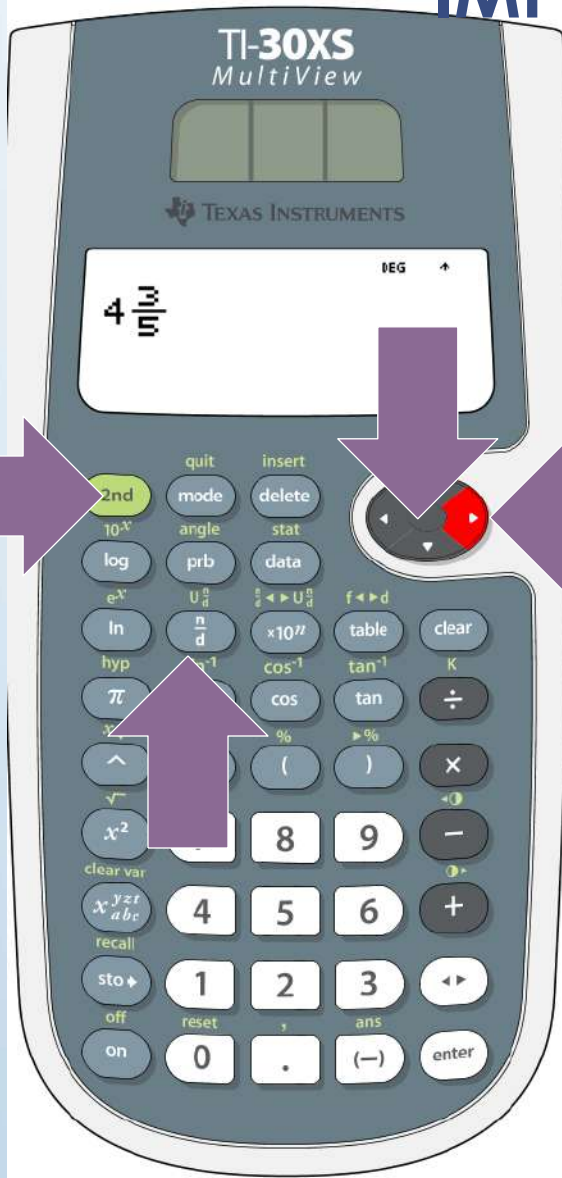
Calculator display showing the fraction  $\frac{1}{6} - -\frac{1}{8}$  and the result  $\frac{7}{24}$ .

Calculator display showing the fraction  $\frac{1}{6} - -\frac{1}{8}$  and the decimal result 0.291666667.

Clear Key Press History

# **Improper Fractions and Mixed Numbers**

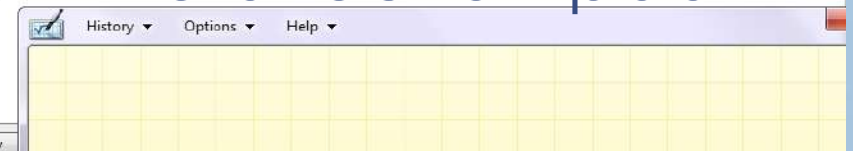
# IMPROPER FRACTIONS and MIXED NUMBERS



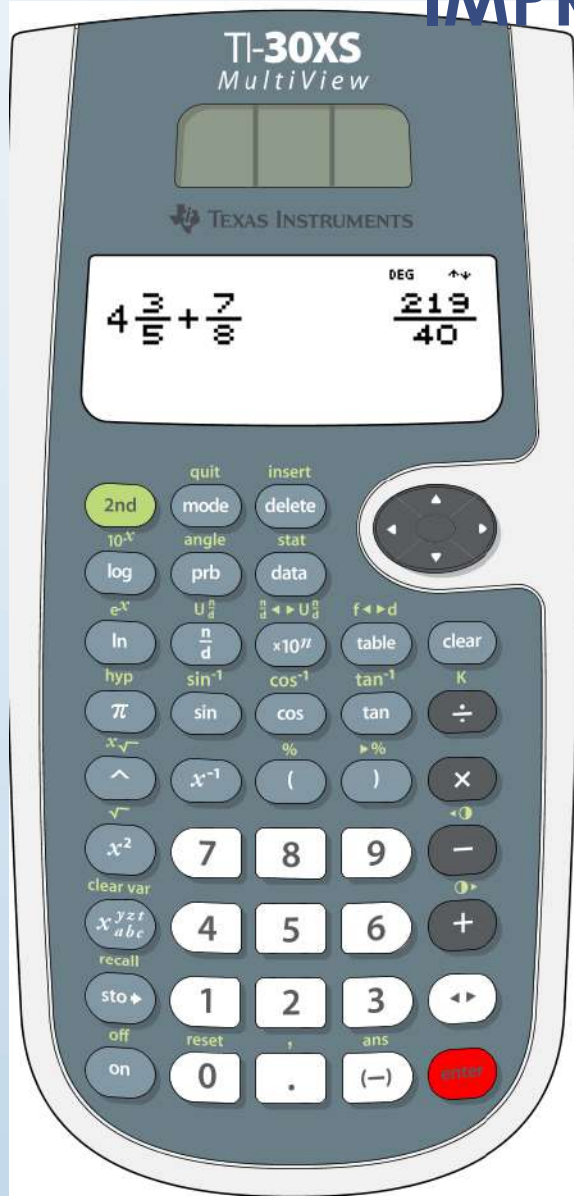
4 2nd n/d 3 ▼ 5 ▶

What about  $4\frac{3}{5} + \frac{7}{8}$  ?

1. Press **4** first (the whole number)
2. Press the green **2<sup>nd</sup>** key
3. Press the **n/d** key (notice the green text)
4. Press **3** (the numerator)
5. Press the **down arrow** on the direction pad
6. Press the **5** key
7. Press the **right arrow** on the direction pad



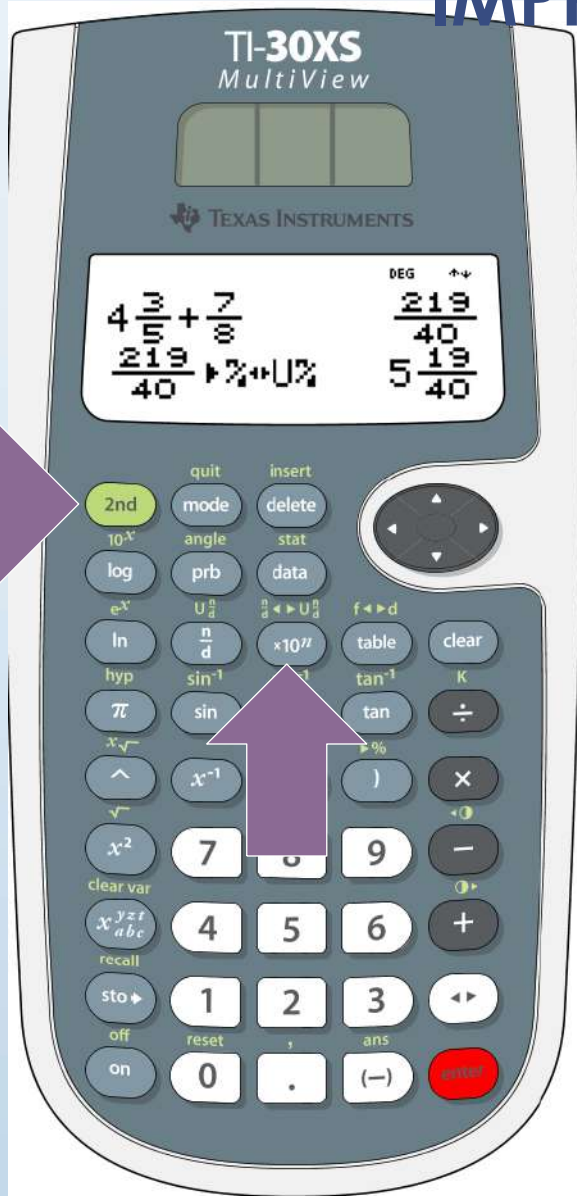
# IMPROPER FRACTIONS and MIXED NUMBERS



What about  $4\frac{3}{5} + \frac{7}{8}$  ?

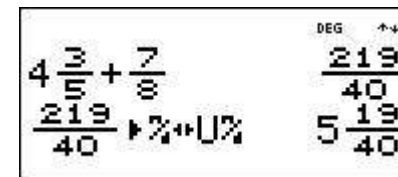
1. Press **+**
2. Enter the next fraction
3. Press the **enter** key

# IMPROPER FRACTIONS and MIXED NUMBERS

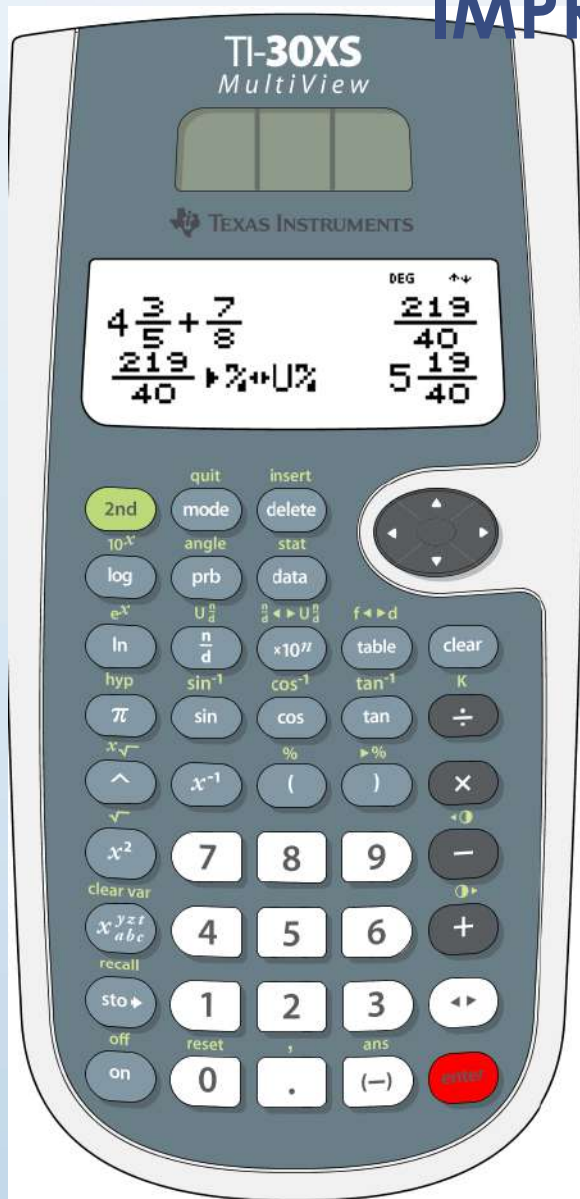


What about  $4\frac{3}{5} + \frac{7}{8}$  ?

1. To change your answer to a mixed number, first press the green **2<sup>nd</sup>** key
2. Next, press the **x10<sup>n</sup>** button (notice the green text)
3. Press the **enter** key



# IMPROPER FRACTIONS and MIXED NUMBERS



You try it!

$$1\frac{1}{4} + \frac{3}{5}$$

Calculator screen showing the calculation:  $1\frac{1}{4} + \frac{3}{5} = \frac{37}{20}$ . The display shows the mixed number  $1\frac{1}{4}$ , the plus sign, the fraction  $\frac{3}{5}$ , and the result  $\frac{37}{20}$ .

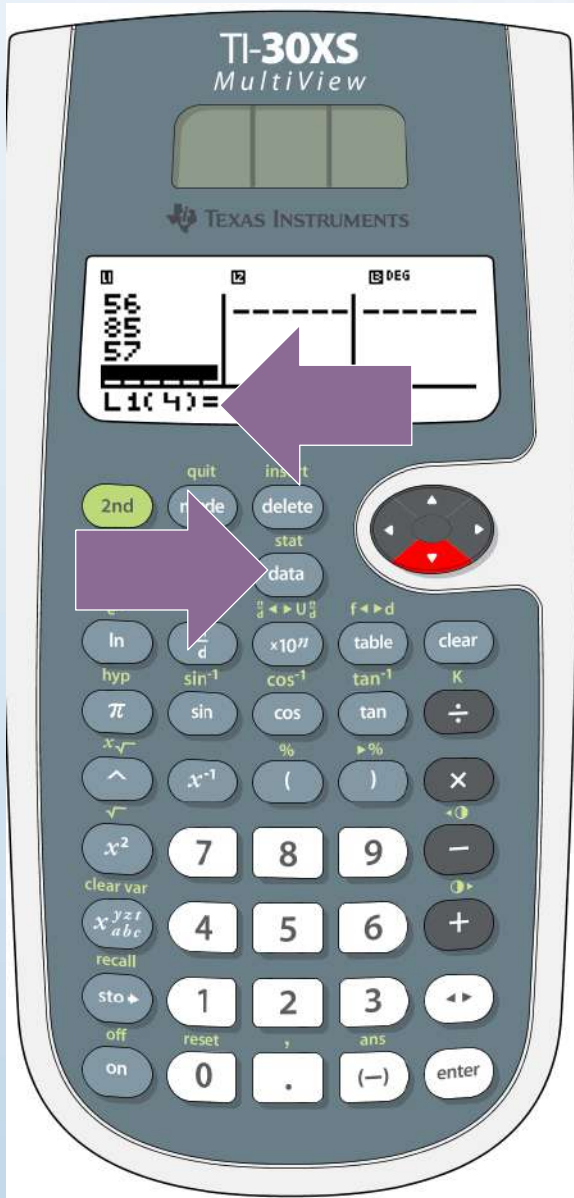
Calculator screen showing the calculation:  $1\frac{1}{4} + \frac{3}{5} = 1\frac{17}{20}$ . The display shows the mixed number  $1\frac{1}{4}$ , the plus sign, the fraction  $\frac{3}{5}$ , and the result  $1\frac{17}{20}$ .

$$2\frac{7}{10} - 1\frac{3}{4}$$

Calculator screen showing the calculation:  $2\frac{7}{10} - 1\frac{3}{4} = \frac{19}{20}$ . The display shows the mixed number  $2\frac{7}{10}$ , the minus sign, the mixed number  $1\frac{3}{4}$ , and the result  $\frac{19}{20}$ .

# Statistics





# STATISTICS

Key Press History Large Screen

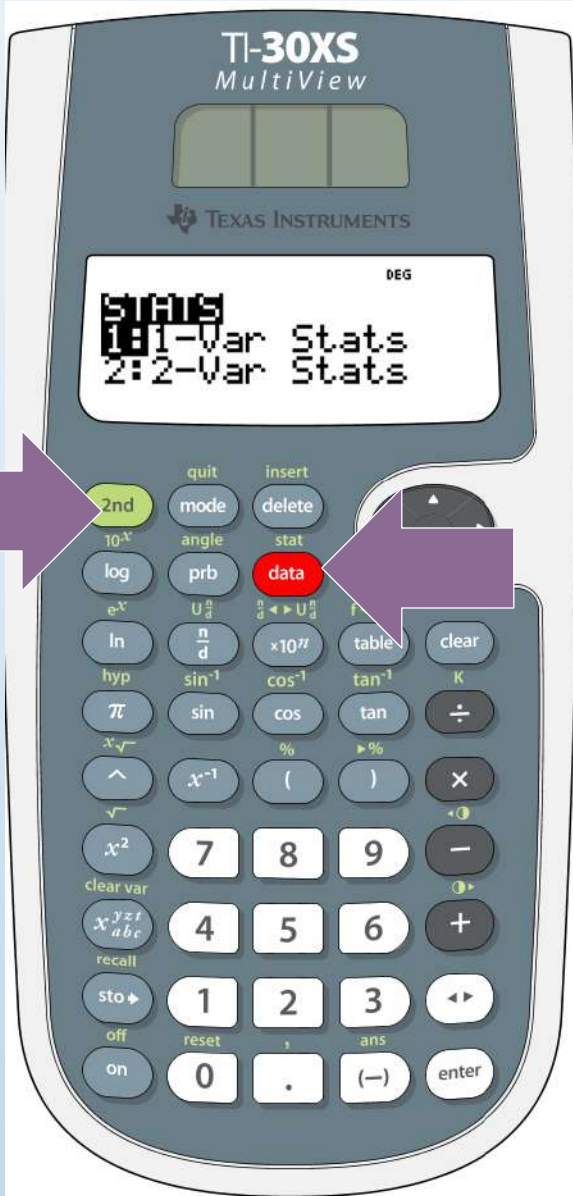
stat  
data 5 6 ▼ 8 5 ▼ 5 7 ▼

56, 85, 57, 48, 65, 70, 75, 67

1. Press the **data** key
2. Enter **56**
3. Press the **down arrow** key
4. Enter **85**
5. Press the **down arrow** key
6. Enter **57**
7. Press the **down arrow** key
8. Continue until you have entered all numbers. Can you tell how many you have entered?

Clear Key Press History

# STATISTICS



Key Press History Large Screen

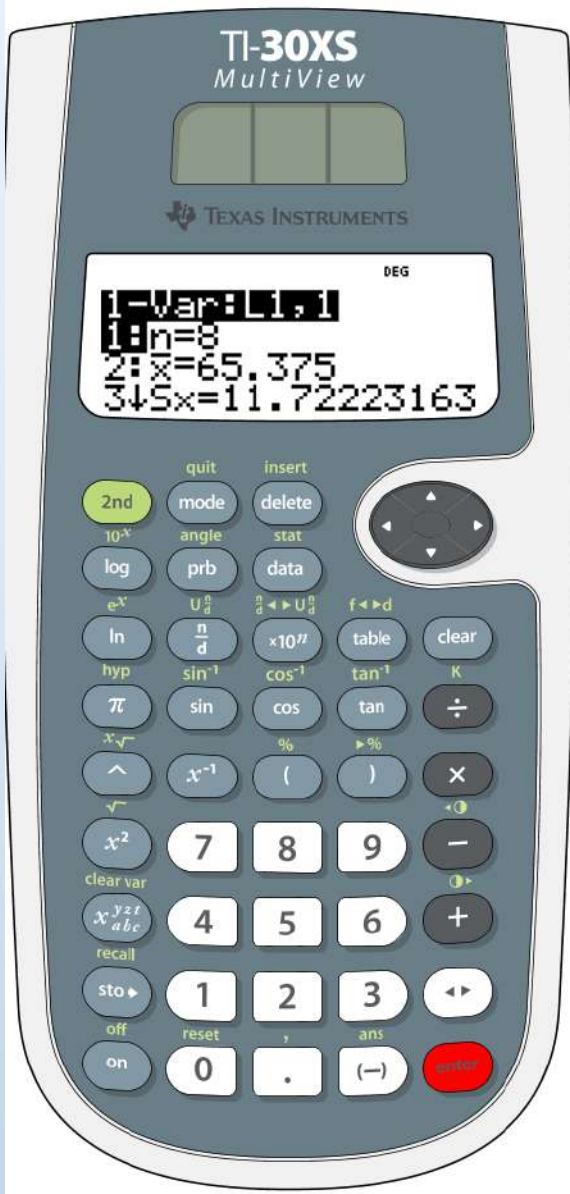
stat	5	6	▼	8	5	▼	5	7	▼	4	8	▼	6	5	▼	7	reset	0	▼	7
data	5	▼	6	7	▼	2nd	stat	data												

56, 85, 57, 48, 65, 70, 75, 67

1. Finish entering all the data.
2. When all data is entered, press the green **2nd** key
3. Press the **data** key (notice the text above)
4. Press **enter** four times



# STATISTICS



Key Press History Large Screen

stat data 5 6 ▼ 8 5 ▼ 5 7 ▼ 4 8 ▼ 6 5 ▼ 7 0 ▼ 7

5 ▼ 6 7 ▼ 2nd stat data enter

Use the **up** and **down arrows** to scroll through your statistics!

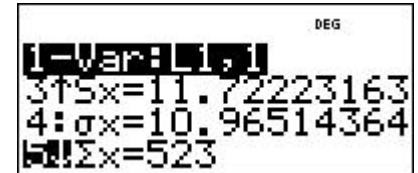
$n=$  (this is number of data you entered)

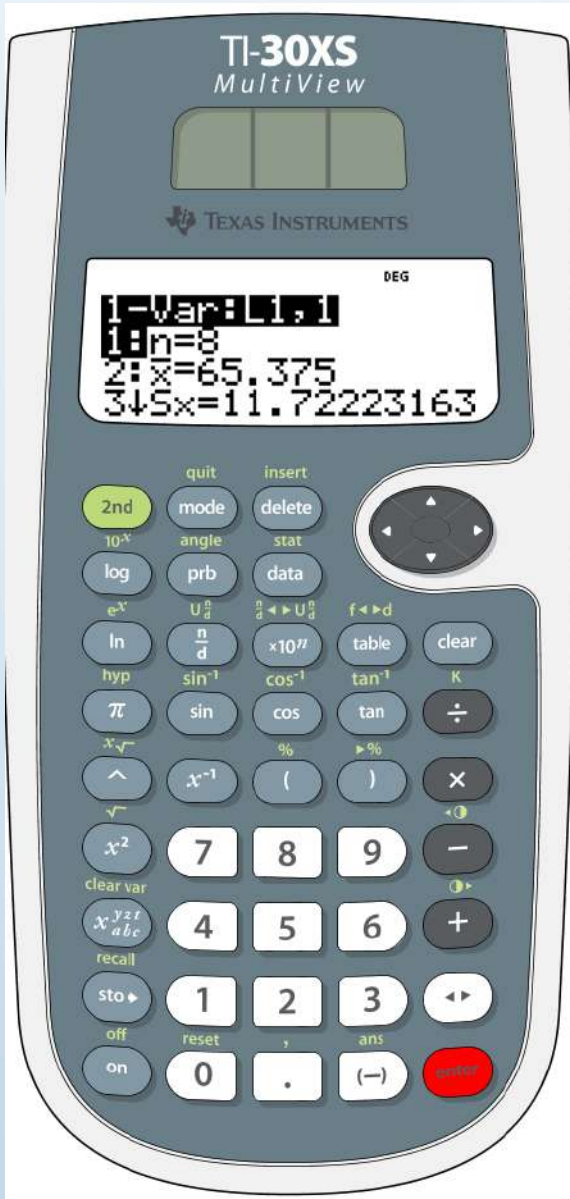
$\bar{x}=$  (this is the **mean or average**)

$Sx=$  (ignore this)

$\sigma x=$  (ignore this)

$\Sigma x=$  (the **sum** of all your numbers)





# STATISTICS

Key Press History Large Screen

stat data 5 6 ▼ 8 5 ▼ 5 7 ▼ 4 8 ▼ 6 5 ▼ 7 0 ▼ 7

5 ▼ 6 7 ▼ 2nd stat data enter

Use the **up** and **down arrows** to scroll through your statistics!

## FIVE NUMBER SUMMARY FOR BOX AND WHISKER PLOTS!

- minX= (the **least value**)
- Q1= (the **lower quartile**)
- Med= (the **median**)
- Q3= (the **upper quartile**)
- maxX= (the **greatest value**)



A TI-30XS calculator screen showing a five-number summary: 1-Var: L1, 1; 7: minX=48; 8: Q1=56.5; 9: Med=66. The screen also shows DEG in the top right corner.

- **Make sure you clear all of your data before starting a new problem.**
- **Do you remember how?**
- **If not, ask now!**

# Special Notes

## SPECIAL NOTES

Some buttons work differently than similar buttons on other calculators you have used.

- Use this button BEFORE you enter the number. *On other calculators, you enter the number, then press +/-.*
- Roots: press  then  BEFORE you enter the number for which you want to find the square root. *On other calculators, you enter the number first, then press a square root button.*





Key Press History Large Screen

2nd reset  
0

Your calculator will not find:

Mode: Just look for the number used most often in a set of data:

10, 13, 10, 15, 9, 10, 12, 23

Outliers: Just look for a number that is far different from the others. *Do you see one above?*

Clear Key Press History





Key Press History Large Screen

2nd reset  
0

Your calculator will not find:

Absolute value: Absolute value is always positive!

What is the absolute value of -37?

$$|-105| =$$
$$13 - |13| =$$

Clear Key Press History