

# Statistics

## Basic Skills & TI Calculator

*Example:*

Use your TI calculator to simplify  $\frac{73 - 78.5}{2.25}$ .

**Solution:**

Use the **(** and **)** to group the numerator as shown below, then press **ENTER**.




```
(73-78.5)/2.25
```

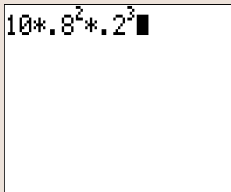
```
(73-78.5)/2.25  
-2.444444444
```

*Example:*

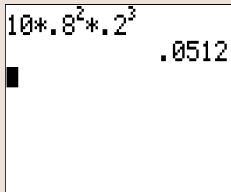
Use your TI calculator to simplify  $10 \bullet 0.8^2 \bullet 0.2^3$  and then express your answer in reduced fraction.

**Solution:**

Use the  for the exponent, and after entering the numerical value of the exponent, use  followed by  key.



10\*.8<sup>2</sup>\*.2<sup>3</sup>█



10\*.8<sup>2</sup>\*.2<sup>3</sup>  
█.0512

## Solution(continued):

To convert this answer to a reduced fraction whenever possible, press **MATH** then choose option 1 **1: ► Frac** followed by **ENTER** key, and press **ENTER** key again

```

MATH NUM CPX PRB
1: ►Frac
2: ►Dec
3: 3
4: 3√(
5: *√
6: fMin(
7: ↓fMax(

```

```

10*.8^2*.2^3
Ans►Frac .0512

```

```

10*.8^2*.2^3
Ans►Frac
          32
         625

```

*Example:*

Use your TI calculator to simplify  $1.645 \cdot \sqrt{\frac{0.65 \cdot 0.35}{125}}$  and then round your answer three decimal places.

**Solution:**

Use the **2ND** button followed by **x<sup>2</sup>** to get **√** key.

```
1.645*√(0.65*0.35/125)
```

```
1.645*√(0.65*0.35/125)
.0701780984
```

The rounded-answer to three decimal places is 0.070

*Example:*

Use your TI calculator to find  $8!$ .

**Solution:**

Use the **MATH** button followed by **▶** to get to **PRB** menu item. Now choose option **4:!** followed by **ENTER**.

```
MATH NUM CPX PRB
1:rand
2:nPr
3:nCr
4:!  
5:randInt(
6:randNorm(
7:randBin(
```

```
8! ■
```

```
8! 40320
■
```

*Example:*

Use your TI calculator to find  ${}_{12}C_5$ .

**Solution:**

First type in the numerical value, then press the **MATH** button followed by **▶** to get to **PRB** menu item. Now choose option **3: nCr**, then type in the second numerical value followed by **ENTER**.

```
MATH NUM CPX PRB
1:rand
2:nPr
3:nCr
4:!
5:randInt(
6:randNorm(
7↓randBin(
```

```
12 nCr 5
```

```
12 nCr 5
792
```

*Example:*

Use your TI calculator to find  ${}_{10}P_4$ .

**Solution:**

First type in the numerical value, then press the **MATH** button followed by **▶** to get to **PRB** menu item. Now choose option **2: nPr**, then type in the second numerical value followed by **ENTER**.

```
MATH NUM CPX PRB
1:rand
2:nPr
3:nCr
4:!
5:randInt(
6:randNorm(
7↓randBin(
```

```
10 nPr 4
```

```
10 nPr 4
5040
```

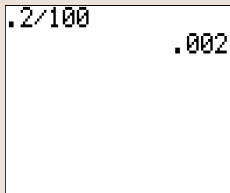


*Example:*

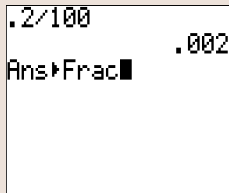
Use your TI calculator to convert 0.2% to a decimal number and then express your answer in reduced fraction.

*Solution:*

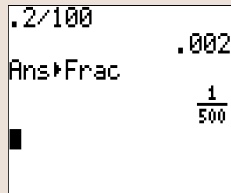
First we convert the numerical value given in percent to a decimal number by dividing it by 100, then we convert the decimal number to a reduced fraction.



.2/100  
.002



.2/100  
.002  
Ans to Frac

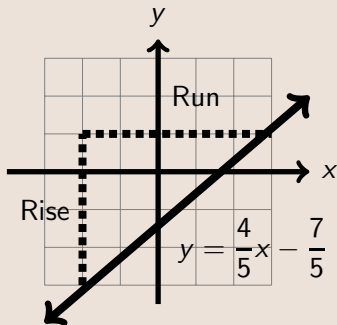


.2/100  
.002  
Ans to Frac  
 $\frac{1}{500}$

*Example:*

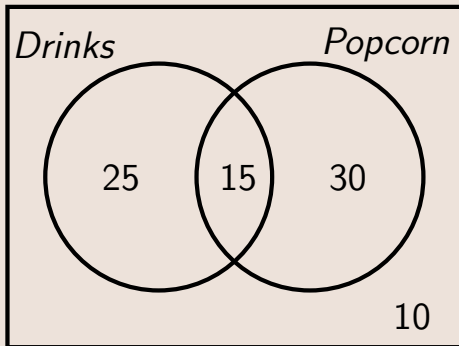
Draw a line that contains  $(-2, -3)$  with slope  $\frac{4}{5}$ . Show the rise and run of the slope. Write the equation of the line in slope-intercept form.

*Solution:*



*Example:*

Consider the Venn Diagram below of 80 different movie goers on what they ordered while at the movie:

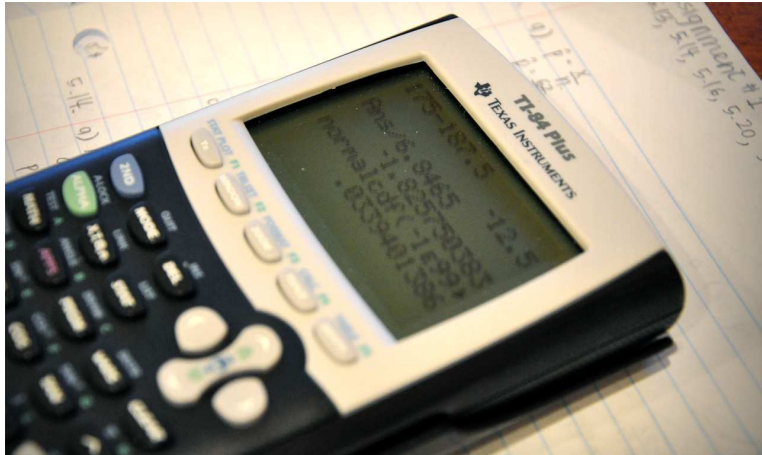


Describe what each number represent.

**Solution:**

We start by working from inside to describe each number.

- 1 15 movie goers ordered drinks and popcorn.
  - 2 30 movie goers ordered popcorn only.
  - 3 25 movie goers ordered drinks only.
  - 4 10 movie goers ordered neither drinks nor popcorn.
  - 5 40 movie goers ordered drinks.
  - 6 45 movie goers ordered popcorn.
-



Master TI, It Is Good For You