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## Rounding Numbers Calculator

### Round Numbers Calculator

Round: To:  ▼

Answer:

100,000,000

Rounded to the **nearest 10,000,000** or  
the **Ten Millions Place**.

Explanation

**9** 9 7 8 6 3 5 4

You rounded to the nearest ten millions place.  
The **9** in the ten millions place rounds up to **10**  
because the digit to the right in the millions  
place is **9**.

Because the ten millions place was rounded up  
from 9 to 10, the ten millions place becomes 0  
and the hundred millions place is increased by  
1. When a 9 is rounded up to 10, that place  
value becomes 0 and we add 1 to the previous  
place value.

**100,000,000**

When the digit to the right is 5 or greater we  
round away from 0.

99786354 was rounded up and away from zero  
to 100,000,000

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### Calculator Use

Rounding calculator to round numbers up or down to any decimal place. Choose ones to round a number to the nearest dollar. Choose hundredths to round an amount to the nearest cent.

### Rounding Numbers

Say you wanted to round the number 838.274. Depending on which place value you'll round to, the final result will vary. Rounding 838.274:

- Rounding to the nearest hundred is 800
- Rounding to the nearest ten is 840
- Rounding to the nearest one is 838
- Rounding to the nearest tenth is 838.3
- Rounding to the nearest hundredth is 838.27

### Basic Rules of Rounding

When you "round to the nearest \_\_\_\_" regardless of what goes in the blank the steps are nearly always the same:

- Identify which place value you are rounding to. The smaller the place value, the more accurate the final result will be.
- Look to the next smallest place value, the digit to the right of the place value you're rounding to. For example, if you want to round to the nearest ten you'd look at the ones place.
- If the digit in the next smallest place value is less than five (0, 1, 2, 3, or 4), you leave

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the digit you want to round to as-is. Any digits after that number (including the next smallest place value you just looked at) become zeros, or drop-off if they're located after the decimal point. This is called rounding down.

- If the next smallest place value is greater than or equal to five (5, 6, 7, 8, or 9), you increase the value of the digit you're rounding to by one (+1). Just like before, any remaining digits before the decimal point become zeros, and any that are after the decimal point are dropped. This is called rounding up.

## New Content: Rounding Method of this Calculator

This Rounding Numbers Calculator uses the method called Round Half Away From Zero. An explanation of this and other rounding methods can be found on our [Rounding Methods Calculator page](#).

### Rounding Half Away From Zero

Round halfway values away from zero. When the digit to the right is 5, this is the halfway value between rounding up or down. For the following examples let's round to the ones place for values between 2 and 3 where the halfway point is 2.5. In this method, whether you round a positive or a negative number, the absolute value of the results are the same. You can see this symmetry around zero by comparing the positive and negative results. If your number to round is negative you can round the digits as you would for rounding a positive number.

For positive numbers:

Numbers less than the halfway point between 2 and 3, which is 2.5, round down, toward 0.  
Numbers greater than or equal to the halfway point between 2 and 3 round up, away from 0.

- 2.4 rounds down to 2
- 2.48 rounds down to 2
- 2.5 rounds up to 3 *halfway, up and away from 0*
- 2.52 rounds up to 3
- 2.6 rounds up to 3

For negative numbers:

Numbers greater than the halfway point between -3 and -2, which is -2.5, round up, toward 0.  
Numbers less than or equal to the halfway point of -2.5 round down, away from 0.

- -2.4 rounds up to -2
- -2.48 rounds up to -2
- -2.5 rounds down to -3 *halfway, down and away from 0*
- -2.52 rounds down to -3
- -2.6 rounds down to -3

### Round to the Nearest Hundred: 3250

- Identify the hundreds digit: the 2 in 3250
- Identify the next smallest place value: the 5 in 3250
- Is that digit greater than or equal to five? Yes, so round up.
- Increase the hundreds digit by one, so 2 becomes 3. Every digit after becomes a zero.

3250 rounded to the nearest hundred is 3300

### Round to the Nearest Ten: 323.5

- Identify the tens digit: the 2 in 323.5
- Identify the next smallest place value: the 3 in 323.5
- Is that digit greater than or equal to five? No, so round down.
- The tens digit stays the same at 2. Every digit after becomes a zero. Digits after the decimal point are dropped.

323.5 rounded to the nearest ten is 320

### Round to the Nearest Ten: 499

- Identify the tens digit: the first 9 in 499
- Identify the next smallest place value: the second 9 in 499
- Is that digit greater than or equal to five? Yes, so round up.
- The tens digit increases by one. Since  $9+1=10$ , you need to carry the 1 and add it to the digit in the hundreds place. Each digit after becomes a zero.

499 rounded to the nearest ten is 500

### Round to the Nearest Tenth: 0.74

- Identify the tenths digit: 7 in 0.74
- Identify the next smallest place value: the 4 in 0.74
- Is that digit greater than or equal to five? No, so round down.
- The tenths digit stays the same at 7. Since the remaining digits are after the decimal point you just drop them.

0.74 rounded to the nearest tenth is 0.7

## Round to the Nearest Hundredth: 3.141

- Identify the hundredths digit: the 4 in 3.141
- Identify the next smallest place value: the second 1 in 3.141
- Is that digit greater than or equal to five? No, so round down.
- The hundredths digit stays the same at 4. Drop the digits to the right of 4.

3.141 rounded to the nearest hundredth is 3.14

## Related Calculators

To learn how to round a number to the nearest multiple see our [Round to Nearest Multiple Calculator](#). Round to multiples of whole numbers or decimals such as tenths, hundredths, thousandths, etc.

## Further Reading

About.com on [How to Round Numbers](#)

MathPlayground: [How do you Round?](#)

Math.com has [several lessons on estimating and rounding](#).

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