

Grade 4 - Rounding Whole Numbers - Lesson

Common Core 4.NBT.A.3 · maths-pdf.fr/en/

Rounding replaces a number with the closest multiple of a place, such as ten, hundred, or thousand. Look at the digit to the right of that place. If it is 5 or more, round up. If it is 4 or less, keep the digit. Then change the digits to its right to zeros. Rounding also helps estimate sums and differences.

Grade 4 · Common Core State Standards: **4.NBT.A.3**

Key facts

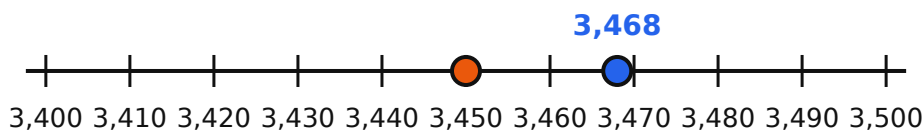
- To round, look at the digit to the right of the place you want.
- Digits 5, 6, 7, 8, and 9 round up. Digits 0, 1, 2, 3, and 4 round down.
- A number exactly halfway between two multiples rounds up: 2,500 rounds to 3,000.
- A 9 can carry: 9,960 rounds to 10,000 at the nearest hundred.
- To estimate, round every number to the same place, then add or subtract.

What does rounding mean?

Rounding swaps an exact number for a nearby, friendlier number. Newspapers say "about 19,000 fans" instead of "18,743 fans." Rounding makes numbers easy to say, compare, and add in your head.

Rounding

To **round** a number to a place, find the closest multiple of that place. If a number is exactly halfway between two multiples, round up.



3,468 is closer to 3,500 than to 3,400, so it rounds to 3,500 (nearest hundred). The orange dot marks the halfway point, 3,450.

How do you round a whole number?



Three steps for rounding any whole number.

1. Underline the digit in the place you are rounding to.
2. Look at the digit to its right.
3. If that digit is 5 or more, add 1 to the underlined digit. If it is 4 or less, keep the underlined digit.
4. Change every digit to the right of the underlined place to 0.

Example: Round 38,745 to the nearest thousand. The underlined digit is 8 (thousands). The digit to its right is 7, which is 5 or more, so 8 becomes 9. The answer is 39,000.

Does the place you pick change the answer?

Yes. A smaller place keeps more detail. A bigger place gives a rougher answer.

Round 746,382 to the	nearest	Answer
hundred thousand	100,000	700,000
ten thousand	10,000	750,000
thousand	1,000	746,000
hundred	100	746,400

One number can be rounded to many places.

Watch for a 9. Rounding 9,960 to the nearest hundred gives 10,000, because 99 hundreds plus 1 more hundred is 100 hundreds.

How can rounding help you estimate?

To estimate a sum or a difference, round each number first, then add or subtract. Use the same place for every number so the problem is easy.

Exact	4,862	2,139
rounded	5,000	2,000

Rounding to the nearest thousand turns $4,862 + 2,139$ into $5,000 + 2,000 = 7,000$.

The exact sum is 7,001, which is close to the estimate of 7,000. If your exact answer is far from your estimate, check your work again.

Questions about rounding whole numbers

What is the rule for rounding up?

Round up when the digit to the right of the rounding place is 5 or more. Add 1 to the digit in the rounding place and change the digits to its right to zeros.

What does 2,500 round to at the nearest thousand?

It rounds to 3,000. The number is exactly halfway between 2,000 and 3,000, and the rule is to round halfway numbers up.

Why do we round numbers?

Rounded numbers are easier to compare and calculate in your head. They are good for estimates, such as checking that a total on a receipt makes sense.

How do you estimate a sum with rounding?

Round each number to the same place, then add. To estimate $4,862 + 2,139$, round to the nearest thousand and add $5,000 + 2,000 = 7,000$.

What happens when you round 999 to the nearest ten?

The answer is 1,000. The ones digit 9 rounds the 9 tens up to 10 tens, which carries into the hundreds and thousands.