

Read About Rounding (Nearest 1,000 and Beyond)

WHAT IS ROUNDING (NEAREST 1,000 AND BEYOND)?

Use place value understanding to round numbers through the millions to any place!

To better understand rounding (nearest 1,000 and beyond)...

LET'S BREAK IT DOWN!

Trees

Let's say you want to round the age of one of the world's oldest trees to the nearest thousand years. The tree is the Jaya Sri Maha Bodhi in Sri Lanka, and it is 2,307 years old. You know you can either round up to 3,000 or down to 2,000. You can use a number line to help you. Draw a number line with 3,000 and 2,000 marked on it. Then mark the middle point which is 2,500. You know that 2,307 is less than 2,500 and you can mark that on the number line. You can see that it is closer to 2,000, so you round down to 2,000. Try this one yourself. Round the age of a tree that is 1,706 years old to the nearest thousand years.



Sports Stadiums

Let's say you want to round the number of fans a stadium holds to the nearest ten thousand. The Manchester United stadium holds 74,140 fans. To round that number to the nearest ten thousand, you look at the place to the right of the ten thousands place, which is the thousands place. The digit 4 is in that



place. That's less than 5, so you round down to 70,000. Try this one yourself. You went to a football game that 38,762 people attended. Round the number of people who attended to the nearest thousand.

Experiment

Let's say you put a video of an experiment on the internet and it got 645,726 views. You want to round that number to the nearest hundred thousand. You look to the place to the right of the hundred thousands place, the ten thousands place. The digit 4 is in that place. Since 4 is less than 5, you round down to 600,000.



Try this one yourself. A video of a different experiment got 521,056 views. Round the number of views to the nearest ten thousand.

Outer Space

Let's say you see a comet passing by earth, and the comet is 1,630,020 kilometers away. You would like to round that number to the nearest million. Since the digit in the place to the right of the millions place is a 6, you round up to 2,000,000. The comet is about 2,000,000 kilometers away. Try this one yourself. There's another comet that is 1,430,276 kilometers away. Round that distance to the nearest million kilometers.



ROUNDING (NEAREST 1,000 AND BEYOND) VOCABULARY

Rounding	Makes a number simpler but keeps its value close to the original number.
Estimate	To find a value that is close enough to the right answer.
Number line	A straight line with numbers placed at equal intervals along its length.
Halfway point	A point that is halfway between two numbers on a number line.
Digit	A whole number from 0 to 9. Digits make up a number and have a value based on the place they are in.
Compare	When you compare numbers, you identify which number is greater and which number is lesser.

ROUNDING (NEAREST 1,000 AND BEYOND) DISCUSSION QUESTIONS

How would you label a number line to help you round 856,253 to the nearest thousand?

I could label a number line with 856,000 on the left and 857,000 on the right. I would mark the middle point, 856,500. I then locate where 856,253 should be placed between the marked points. 856,253 is less than 856,500 so it is closer to 856,000 on the number line. I would round down to 856,000.

What are the rules for rounding?

Look to the right of the place you want to round to. If the digit in that place is 5 or greater, round up. If the digit in that place is less than 5, round down.

What steps would you go through to round 8,496,329 to the nearest ten thousand using the rules?

I'd look at the ten thousands place, which has the digit 9 in it. The place to the right of that place is the thousands place and it has a 6 in it. Since 6 is greater than 5, that means I round up. When I round 9 ten thousands up, it goes to 10 ten thousands. I do some regrouping and get 8,500,000.

What is the largest number that would round to 7,000,000 when rounding to the nearest million?

7,499,999

What is a situation where you would want to use rounding? What is a situation where you would not want to use rounding?

Use rounding to report attendance at a football game. Don't use rounding to record measurements for a science experiment where you need to be very accurate.
