

**Essential Question****How Do You Compare Numbers?**

A

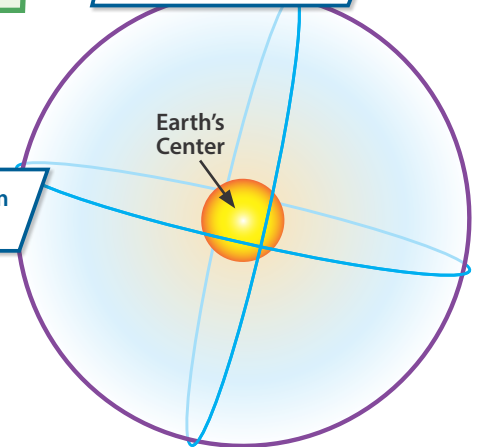
Earth is not perfectly round. The North Pole is 6,356 kilometers from Earth's center. The equator is 6,378 kilometers from the center. Which is closer to Earth's center, the North Pole or the equator?



The symbol $>$ means "is greater than," and the symbol $<$ means "is less than."

Equator: 6,378 km from center

North Pole: 6,356 km from center



B

Step 1

Write the numbers, lining up places. Begin at the left and compare.

6,356
6,378

The thousands digit is the same in both numbers.

C

Step 2

Look at the next digit. Compare the hundreds.

6,356
6,378

The hundreds digit is also the same in both numbers.

D

Step 3

The first place where the digits are different is the tens place. Compare the tens.

6,356 5 tens $<$ 7 tens,
6,378 so 6,356 $<$ 6,378.

The North Pole is closer than the equator to Earth's center.

Convince Me! Reasoning Is a whole number with 4 digits always greater than or less than a whole number with 3 digits? Explain.

☆ Guided Practice

Do You Understand?

1. Which place do you use to compare the numbers 60,618 and 60,647?
2. Morocco has a total area of 442,300 square kilometers. Uzbekistan has a total area of 447,400 square kilometers. Use $>$, $<$, or $=$ to compare the two areas.

Do You Know How?

For **3–7**, complete by writing $>$, $=$, or $<$ in each .

3. 2,643 2,643
4. 62,519 64,582
5. 218,701 118,692
6. 32,467 32,467
7. 19,219 19,209

☆ Independent Practice ☆

For **8–12**, complete by writing $>$, $=$, or $<$ in each .

8. 22,873 22,774
9. 912,706 912,706
10. 22,240 2,224
11. $30,000 + 5,000 + 3$ $300,000 + 5,000$
12. $40,000 + 2,000 + 600 + 6$ $40,000 + 3,000 + 10$

For **13–17**, write which place to use when comparing the numbers.

- | | | |
|------------------------|------------------------|----------------------|
| 13. 394,284
328,234 | 14. 6,716
6,714 | 15. 32,916
32,819 |
| 16. 12,217
11,246 | 17. 812,497
736,881 | |

Remember to compare each place value, starting on the left!



Problem Solving

For 18–19, use the table at the right.

18. Which genres at Danny's Books did **NOT** sell better than Science?

19. Which genres at Danny's Books sold better than Biography?

Sales at Danny's Books	
Fiction	48,143
Fantasy	42,843
Biography	41,834
Science	41,843
Humor	14,843

20. Celia bought 3 bags of 4 hamburger buns and 3 bags of 8 hot dog buns. How many hamburger and hot dog buns did Celia buy?

21. **Make Sense and Persevere** Write three numbers for which you would use the hundreds place to compare to 35,712.

22. **enVision® STEM** The Illinoian Stage began about 300,000 years ago. The Wolstonian Stage began about 352,000 years ago. Compare 300,000 to 352,000.

23. An orchard in Maine has 5,287 apple trees. An orchard in Vermont has 5,729 trees. Use $<$, $>$, or $=$ to write a comparison between the number of trees in each orchard.

24. In 2010, the population of Alaska was 710,231. Write this number in expanded form, and write the number name.

25. **Higher Order Thinking** Explain how you know 437,160 is greater than 43,716.



Assessment Practice

26. Is each comparison true or false?

	True	False
$209,999 > 210,000$	<input type="checkbox"/>	<input type="checkbox"/>
$59,546 < 59,564$	<input type="checkbox"/>	<input type="checkbox"/>
$178,614 > 178,641$	<input type="checkbox"/>	<input type="checkbox"/>

27. Is each comparison true or false?

	True	False
$111,009 > 111,110$	<input type="checkbox"/>	<input type="checkbox"/>
$28,736 < 27,736$	<input type="checkbox"/>	<input type="checkbox"/>
$69,454 > 69,455$	<input type="checkbox"/>	<input type="checkbox"/>