

Number Line Detectives

Compare, order, and place numbers through 10,000.

GRADE 3 • MA.3.NSO.1.3

MA.3.NSO.1.3 "Plot, order and compare whole numbers up to 10,000."

NAME _____

DATE _____

COMPARE BY PLACE VALUE

To compare whole numbers, line up the digits and start at the greatest place value, including the ten-thousands place when a number has 10,000. The first place with different digits tells which number is greater. On a number line, smaller numbers are to the left and larger numbers are to the right.

WORKED EXAMPLE

Compare 7,482 and 7,428. Use $>$, $<$, or $=$.

- Both numbers have 7 thousands and 4 hundreds.
- Compare the tens: 8 tens is greater than 2 tens.
- Write $>$ because 7,482 is greater.

Answer: $7,482 > 7,428$

PRACTICE 6 problems

- 1** Fill in the blank with $>$, $<$, or $=$. 3,406 ____ 3,460

ANSWER _____

- 2** Order these numbers from least to greatest: 9,015, 9,105, 9,051.

ANSWER _____

- 3** A number line has equal spaces. Its marks read 6,200, ____, 6,400. What number belongs on the middle mark?

ANSWER _____

- 4** Fill in the blank with $>$, $<$, or $=$. 10,000 ____ 9,999

ANSWER _____

- 5** Order these numbers from greatest to least: 1,250, 1,205, 1,520.

ANSWER _____

- 6** What number should be plotted halfway between 8,700 and 8,800 on a number line?

ANSWER _____

APPLY IT Show your work

- 1** Maya's class collected 2,675 stickers for a school project. Luis's class collected 2,756 stickers. Which class collected more stickers?

WORK SPACE

ANSWER _____

- 2** Three students counted pages read during a reading challenge. Asha read 6,450 pages, Ben read 6,405 pages, and Carmen read 6,540 pages. Order the page totals from least to greatest.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Order 5,900, 5,090, and 5,009 from greatest to least. Explain how place value helps you decide.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Fill in the blank with $>$, $<$, or $=$. 3,406 ____ 3,460	3,406 < 3,460
2	Order these numbers from least to greatest: 9,015, 9,105, 9,051.	9,015, 9,051, 9,105
3	A number line has equal spaces. Its marks read 6,200, ____, 6,400. What number belongs on the middle mark?	6,300
4	Fill in the blank with $>$, $<$, or $=$. 10,000 ____ 9,999	10,000 > 9,999
5	Order these numbers from greatest to least: 1,250, 1,205, 1,520.	1,520, 1,250, 1,205
6	What number should be plotted halfway between 8,700 and 8,800 on a number line?	8,750

PART 2 • APPLY IT

1. **Luis's class collected more stickers.** Compare the thousands first. Both have 2 thousands, then 7 hundreds is greater than 6 hundreds, so 2,756 is greater than 2,675.
2. **6,405, 6,450, 6,540** All three totals have 6 thousands. Compare the hundreds, then tens, to place 6,405 first, 6,450 next, and 6,540 last.

CHALLENGE

5,900, 5,090, 5,009. All three numbers have 5 thousands. 5,900 has 9 hundreds, while the other two have 0 hundreds. Between 5,090 and 5,009, both have 0 hundreds, but 5,090 has 9 tens and 5,009 has 0 tens.

Accept correctly written comparison symbols and ordered lists with commas or spaces. For the challenge, accept equivalent place-value explanations that justify both comparisons.