

Comparing numbers to 9,999: digit by digit

CURRICULUM ALIGNMENT

NUM.PVT.3

explore equivalent numerical expressions of numbers using the base ten system.

INTERACTIVES

Place Value Blocks (Dienes) · display

Drag Sort · challenge, explore

WHAT THIS LESSON TEACHES

To compare two numbers up to 9,999, line them up by place value and check the columns from the left. The first column where the digits differ decides which number is bigger.

→ 4,260 and 4,209 tie in thousands and hundreds, so the tens decide: 6 tens beats 0 tens, so 4,260 is bigger.

→ $6,231 < 6,238$ because the units differ: 1 unit is less than 8 units.

MODEL THIS ON THE BOARD

COMPARING DIGIT BY DIGIT

- 1 Line the numbers up in the Th H T U columns.
- 2 Thousands and hundreds match ($4 = 4$, $2 = 2$), so move right.
- 3 Tens differ: $6 > 0$, so this column decides.
- 4 $4,260 > 4,209$.

Th	H	T	U
4	2	6	0
4	2	0	9

DISCUSSION STARTER

REFLECT

When two numbers look almost the same, which column decides for you first?

ANSWER KEY

a) $>$ b) $<$ c) $>$ Q1: $4,000 > 900$ Q2: $6,300 < 6,800$ Q3: $5,360 > 5,309$ (tens)**Spot:**

After the thousands and hundreds match, compare the tens: 5 tens $>$ 1 ten, so $8,350 > 8,317$. The units never get a say.

EXTENSION SHEET · STRETCH ANSWERS

S1: $7,649 < 7,694$ (tens: $4 < 9$)S2: $8,088 < 8,808$ (hundreds: $0 < 8$)S3: $3,615 > 3,561$; $7,302 < 7,320$ S4: No. $6,099 < 6,190$

S5: 7, 8 or 9

Investigation: Which column decides? — open-ended; scan pupils' working for valid solution paths rather than a single answer.