

Ordering a set of numbers

CURRICULUM ALIGNMENT

NUM.PVT.3

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

INTERACTIVES **Drag Sort · challenge, display**

WHAT THIS LESSON TEACHES

To order a set of numbers, compare them column by column starting at the biggest place value and only move right when the digits tie. Least to greatest keeps pulling out the smallest that is left; greatest to least pulls out the biggest.

→ 850, 990, 1,005 in order least to greatest: 850, 990, 1,005.

→ 3,040 and 3,004 tie on thousands and hundreds, so the tens column decides: 3,004 then 3,040.

MODEL THIS ON THE BOARD

ORDERING LEAST TO GREATEST

- 1 The numbers are **6,303**, **6,030**, **6,300** and **6,330**. All have 6 thousands, so look at the hundreds.
- 2 **6,030** has 0 hundreds, so it is smallest. The other three have 3 hundreds, so look at the tens.
- 3 **6,330** has 3 tens, so it is biggest. **6,300** and **6,303** tie on the tens, so the units decide: **6,300** comes first.
- 4 In order: **6,030**, **6,300**, **6,303**, **6,330**.

Th	H	T	U
6	0	3	0
6	3	0	0
6	3	0	3
6	3	3	0

ANSWER KEY

a) 870, 5,260, 5,620

b) 7,081, 7,108, 7,810

c) the hundreds column ($0 < 1$)

Q1: 840, 960, 1,080

Q2: 2,035, 2,350, 2,530

Q3: 1,310, 1,130, 1,031, 1,013, 925

Q4: 8,007, 8,070, 8,700

Q5: 3,026, 3,062, 3,260, 3,620

a) **Never** : The lesson says to line up place values and check columns from the left (thousands first).

b) **Sometimes** : Hundreds decides only when those digits differ; if they match too you keep moving right.

c) **Never** : Thousands match, then hundreds 0 is less than 5, so 4,050 is smaller.

d) **Always** : Lining up by place value gives the 3-digit number 0 thousands, which loses to any thousands digit 1-9.

EXTENSION SHEET · STRETCH ANSWERS

S1: 1,876, 5,819, 9,614, 9,788

S2: 4,057, 4,075, 4,507, 4,705, 4,750

S3: €6,909, €6,900, €6,090, €6,009

S4: No. 3,248, 3,428, 3,482, 3,842

S5: any number from 2,141 to 2,409, e.g. 2,300