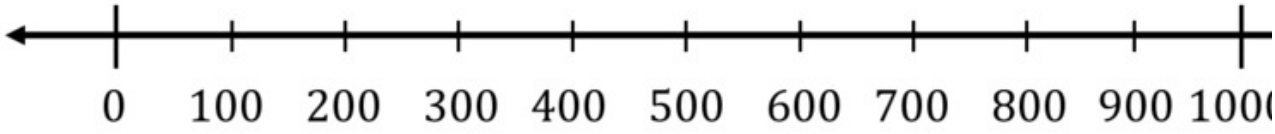
2.NBT Number Line Comparisons

Alignments to Content Standards: 2.NBT.A.4

Task

a. Plot the following numbers on the number line.

456 983 938 425 220 202



b. Choose eight pairs of numbers from those you plotted on the number line. Compare the

i. _____ > _____

ii. _____ > _____

iii. _____ > _____

iv. _____ > _____

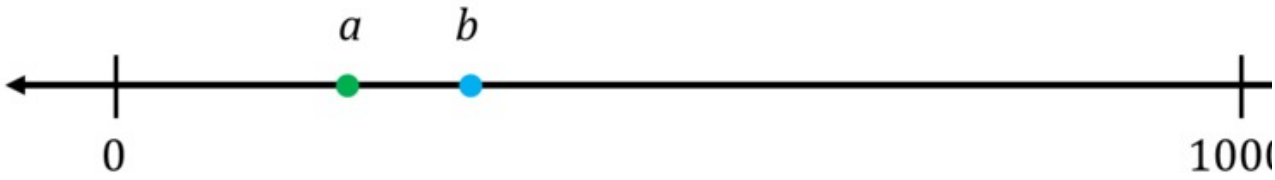
v. _____ < _____

vi. _____ < _____

vii. _____ < _____

viii. _____ < _____

c. Is the number a greater or less than the number b?



How do you know?

IM Commentary

The purpose of this task is for students to use the number line to make comparisons betw digit numbers. As students plot the numbers, they have to make many comparison as they through, for example, where to plot 456. The four in the hundreds place tells them the nur is larger than 400 and smaller than 500. The five in the tens place helps them locate the nu near the center of the interval between 400 and 500. Students may need to use tick marks sub-divide this increment to show the midpoint or smaller refinements.

The task is designed, in part, to help students understand how the number line works and numbers on the right of the number line are greater than numbers on the left. Part (b) dra attention to this concept.

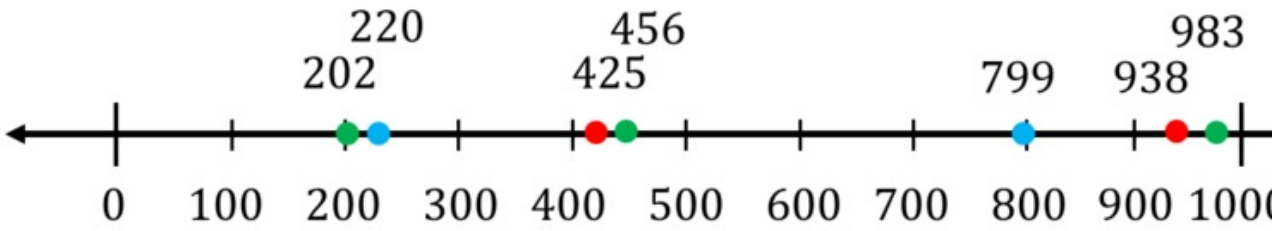
The task also calls on students to develop and apply a systematic approach to filling in the blanks to avoid duplicate entries.

Note: There is a student printable attached.

Edit this solution

Solution

a.



b. There are numerous correct comparisons. First a list of > possibilities:

- 220 > 202
- 425 > 202, 220
- 799 > 202, 220, 425
- 938 > 202, 220, 425, 799
- 983 > 202, 220, 425, 799, 938

Then the < solutions:

- 202 < 220, 425, 799, 938, 983
- 220, < 425, 799, 938, 983
- 425 < 799, 938, 983
- 799 < 938, 983
- 938 < 983

c. The number b is **greater** than the number a.

Acceptable student responses are similar to the following:

- b is greater because it is on the right.
- The more right, the greater the number.