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NCERT Class 9 Solutions: Number Systems (Chapter 1) Exercise 1.4

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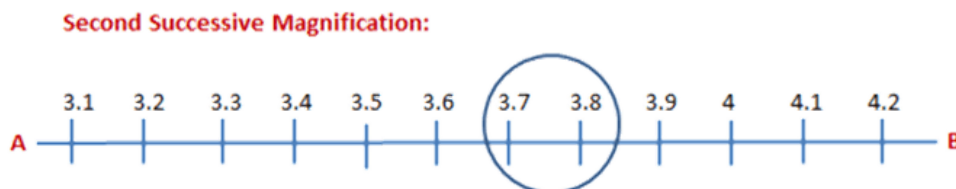
Q. 1 Visualize 3.765 on the number line, using successive magnification

Solution:

- Step 1 – Consider a number line.
- Step 2 – Visualize line between number 3 and 4



- Step 3 – Magnify space between numbers 3 and 4 into 10 equal parts.



- Step 4 – Visualize between number 3.7 and 3.8 minutely using a magnifying glass.
- Step 5 – Magnify and divide space between numbers 3.7 and 3.8 into 10 equal parts.



- Step 6 – Visualize between number 3.76 and 3.77 minutely using a magnifying glass.
- Step 7 – Magnify and divide space between numbers 3.76 and 3.77 into 10 equal parts.

Fourth Successive Magnification:

- Step 6 – Visualize the number 3.765 using a magnifying glass.

Q. 2 Visualize $4.\overline{26}$ on the number line, up to 4 decimal places

Solution:

Since we have to go up to 4 decimal places we will consider the number 4.2626 and visualize it on number line

- Step 1 – Consider a number line.
- Step 2 – Take space between number 4 and 5.

First Magnification:

- Step 3 – Divide the space between numbers 4 and 5 into 10 equal parts.
- Step 4 – Consider the space between numbers 4.2 and 4.3 using a magnifying glass.

Second Successive Magnification:

- Step 5 – Divide space between numbers 4.2 and 4.3 into 10 equal parts.
- Step 6 – Consider space between numbers 4.26 and 4.27.

Third Successive Magnification:

- Step 7 – Divide space between numbers 4.26 and 4.27 into 10 equal parts.
- Step 8 – Consider space between numbers 4.262 and 4.263.

Fourth Successive Magnification:

- Step 9 – Divide space between numbers 4.262 and 4.263 into 10 equal parts.
- Step 10 – Visualize 4.2626 between the numbers 4.262 and 4.263.

Fifth Successive Magnification: