

# Maharashtra Board Solutions Class 8-Maths

## (Practice Set 1.2): Chapter 1- Rational and Irrational Numbers



For any clarifications or questions you can write to [info@indcareer.com](mailto:info@indcareer.com)

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# Maharashtra Board Solutions Class 8-Maths (Practice Set 1.2): Chapter 1- Rational and Irrational Numbers

Class 8: Maths Chapter 1 solutions. Complete Class 8 Maths Chapter 1 Notes.

## Maharashtra Board Solutions Class 8-Maths (Practice Set 1.1): Chapter 1- Rational and Irrational Numbers

Maharashtra Board 8th Maths Chapter 1, Class 8 Maths Chapter 1 solutions

### Question 1.

Compare the following numbers.

- i. 7, -2
- ii. 0, -95
- iii. 87, 0
- iv. -54, 14
- v. 4029, 14129
- vi. -1720, -1320
- vii. 1512, 716
- viii. -258, -94
- ix. 1215, 35
- x. -711, -34

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**Solution:**

i. 7, -2

If a and b are positive numbers such that  $a < b$ , then  $-a > -b$ .

Since,  $2 < 7 \therefore -2 > -7$

ii. 0, -95

On a number line, -95 is to the left of zero.

$\therefore 0 > -95$

iii. 87, 0

On a number line, zero is to the left of 87 .

$\therefore 87 > 0$

iv. -54, 14

We know that, a negative number is always less than a positive number.

$\therefore -54 < 14$

v. 4029, 14129

Here, the denominators of the given numbers are the same.

Since,  $40 < 141$

$\therefore 4029 < 14129$

vi. -1720, -1320

Here, the denominators of the given numbers are the same.

Since,  $17 < 13$

$\therefore -17 < -13$

$\therefore -1720 < -1320$

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vii. 1512,716

Here, the denominators of the given numbers are not the same.

LCM of 12 and 16 = 48

$$\frac{15}{12} = \frac{15 \times 4}{12 \times 4} = \frac{60}{48},$$

$$\frac{7}{16} = \frac{7 \times 3}{16 \times 3} = \frac{21}{48}$$

Since,  $60 > 21$

$$\therefore \frac{60}{48} > \frac{21}{48}$$

$$\therefore \frac{15}{12} > \frac{7}{16}$$

Alternate method:

$$15 \times 16 = 240$$

$$12 \times 7 = 84$$

Since,  $240 > 84$

$$\therefore 15 \times 16 > 12 \times 7$$

$$\therefore \frac{15}{12} > \frac{7}{16} \quad \dots \left[ \text{If } a \times d > b \times c, \text{ then } \frac{a}{b} > \frac{c}{d} \right]$$

viii. -258,-94

Here, the denominators of the given numbers are not the same.

LCM of 8 and 4 = 8

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$$-\frac{9}{4} = -\frac{9 \times 2}{4 \times 2} = -\frac{18}{8}$$

Since,  $25 > 18$

$$\therefore \frac{25}{8} > \frac{18}{8}$$

$$\therefore -\frac{25}{8} < -\frac{18}{8}$$

$$\therefore -\frac{25}{8} < -\frac{9}{4}$$

ix. 1215,35

Here, the denominators of the given numbers are not the same.

LCM of 15 and 5 = 15

$$\frac{3}{5} = \frac{3 \times 3}{5 \times 3} = \frac{9}{15}$$

Since,  $12 > 9$

$$\therefore \frac{12}{15} > \frac{9}{15}$$

$$\therefore \frac{12}{15} > \frac{3}{5}$$

x. -711,-34

Here, the denominators of the given numbers are not the same.

LCM of 11 and 4 = 44

$$-\frac{7}{11} = -\frac{7 \times 4}{11 \times 4} = -\frac{28}{44},$$

$$-\frac{3}{4} = -\frac{3 \times 11}{4 \times 11} = -\frac{33}{44}$$

Since,  $28 < 33$

$$\therefore \frac{28}{44} < \frac{33}{44}$$

$$\therefore -\frac{28}{44} > -\frac{33}{44}$$

$$\therefore -\frac{7}{11} > -\frac{3}{4}$$

**Maharashtra Board Class 8 Maths Solutions Chapter 1 Rational and Irrational Numbers  
Practice Set 1.2 Questions and Activities**

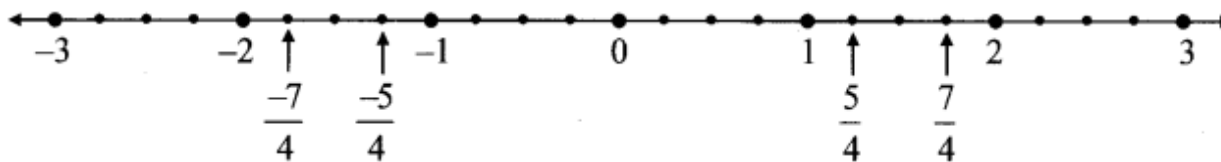
**Question 1.**

Verify the following comparisons using a number line. (Textbook pg. no, .3)

i.  $2 < 3$  but  $-2 > -3$

ii.  $54 < 74$  but  $-54 < -74$

**Solution:**



We know that, on a number line the number to the left is smaller than the other.

$$\therefore 2 < 3 \text{ and } -3 < -2$$

i.e.  $2 < 3$  and  $-2 > -3$

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$$\frac{5}{4} < \frac{7}{4} \text{ and } \frac{-7}{4} < \frac{-5}{4}$$

$$\text{i.e. } \frac{5}{4} < \frac{7}{4} \text{ and } \frac{-5}{4} > \frac{-7}{4}$$



# Maharashtra Board Solutions

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## About About Maharashtra State Board (MSBSHSE)

The Maharashtra State Board of Secondary and Higher Secondary Education or MSBSHSE (Marathi: महाराष्ट्र राज्य माध्यमिक आणि उच्च माध्यमिक शिक्षण मंडळ), is an **autonomous and statutory body established in 1965**. The board was amended in the year 1977 under the provisions of the Maharashtra Act No. 41 of 1965.

The Maharashtra State Board of Secondary & Higher Secondary Education (MSBSHSE), Pune is an independent body of the Maharashtra Government. There are more than 1.4 million students that appear in the examination every year. The Maha State Board conducts the board examination twice a year. This board conducts the examination for SSC and HSC.

The Maharashtra government established the Maharashtra State Bureau of Textbook Production and Curriculum Research, also commonly referred to as Ebalbharati, in 1967 to take up the responsibility of providing quality textbooks to students from all classes studying under the Maharashtra State Board. MSBHSE prepares and updates the curriculum to provide holistic development for students. It is designed to tackle the difficulty in understanding the concepts with simple language with simple illustrations. Every year around 10 lakh students are enrolled in schools that are affiliated with the Maharashtra State Board.

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How many state boards are there in Maharashtra?

The Maharashtra State Board of Secondary & Higher Secondary Education, conducts the HSC and SSC Examinations in the state of Maharashtra through its nine Divisional Boards located at Pune, Mumbai, Aurangabad, Nasik, Kolhapur, Amravati, Latur, Nagpur and Ratnagiri.

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