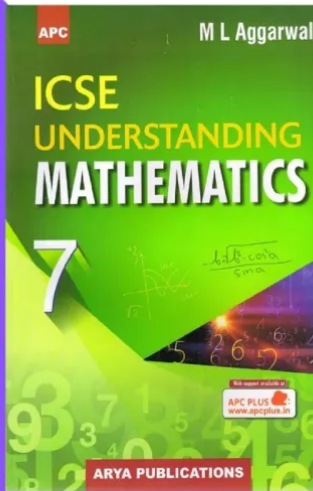


ML Aggarwal Solutions for Class 7 Maths

Chapter 3- Rational Numbers



ML Agrawal Solutions

CLASS 7 MATHS

Chapter 3: Rational
Numbers

www.indcareer.com/schools

For any clarifications or questions you can write to info@indcareer.com

Postal Address

IndCareer.com, 52, Shilpa Nagar, Somalwada Nagpur - 440015
Maharashtra, India

WhatsApp: +91 9561 204 888, **Website:** <https://www.indcareer.com> Class 8: Biology
Chapter 6 solutions. Complete Class 8 Biology Chapter 6 Notes.

<https://www.indcareer.com/schools/ml-aggarwal-solutions-for-class-7-maths-chapter-3-rational-numbers/>

ML Aggarwal Solutions for Class 7 Maths

Chapter 3- Rational Numbers

Class 7: Maths Chapter 3 solutions. Complete Class 7 Maths Chapter 3 Notes.

ML Aggarwal Solutions for Class 7 Maths Chapter 3- Rational Numbers

ML Aggarwal 7th Maths Chapter 3, Class 7 Maths Chapter 3 solutions

1. Which of the following are positive rational numbers?

$\frac{5}{8}$, $-\frac{3}{11}$, $\frac{0}{5}$, 7, -4, $-\frac{3}{-13}$, $-\frac{17}{-6}$, $\frac{9}{-20}$.

Solution:

The positive rational numbers are:

$\frac{5}{8}$, $\frac{0}{5}$, 7, $-\frac{3}{-13}$, $-\frac{17}{-6}$.

2. Which of the following are negative rational numbers?

$-\frac{5}{7}$, $\frac{4}{-3}$, $-\frac{3}{-11}$, -6, 9, 0, $-\frac{28}{5}$, $\frac{31}{7}$.

Solution:

The negative rational numbers are:

$-\frac{5}{7}$, $\frac{4}{-3}$, -6, $-\frac{28}{5}$.

3. Find four rational numbers equivalent to each of the following rational numbers:

(i) $\frac{3}{-7}$

(ii) $-\frac{5}{-9}$

Solution:

(i) $\frac{3}{-7}$

Let us find the equivalent numbers:

<https://www.indcareer.com/schools/ml-aggarwal-solutions-for-class-7-maths-chapter-3-rational-numbers/>

Firstly multiply and divide by 2,

$$(3/-7) \times (2/2) = 6/-14$$

Similarly, multiply and divide by 3,

$$(3/-7) \times (3/3) = 9/-21$$

Multiply and divide by 4,

$$(3/-7) \times (4/4) = 12/-28$$

Multiply and divide by 5,

$$(3/-7) \times (5/5) = 15/-35$$

Hence, four equivalent rational numbers are:

6/-14, 9/-21, 12/-28, 15/-35

(ii) -5/-9

Let us find the equivalent numbers:

Firstly multiply and divide by 2,

$$(-5/-9) \times (2/2) = -10/-18 = 10/18$$

Similarly, multiply and divide by 3,

$$(-5/-9) \times (3/3) = -15/-27 = 15/27$$

Multiply and divide by 4,

$$(-5/-9) \times (4/4) = -20/-36 = 20/36$$

Multiply and divide by 5,

$$(-5/-9) \times (5/5) = -25/-45 = 25/45$$

Hence, four equivalent rational numbers are:

10/18, 15/27, 20/36, 25/45

4. Write each of the following rational numbers with positive denominators:

(i) 4/-9

(ii) 17/-33

<https://www.indcareer.com/schools/ml-aggarwal-solutions-for-class-7-maths-chapter-3-rational-numbers/>

(iii) $-15/-38$

Solution:

(i) $4/-9 = -4/9$

(ii) $17/-33 = -17/33$

(iii) $-15/-38 = 15/38$

5. Write next four rational numbers in each of the following patterns:

(i) $-1/4, -2/8, -3/12, -4/16, \dots$

(ii) $2/-3, -4/6, -6/9, -8/12, \dots$

Solution:

(i) $-1/4, -2/8, -3/12, -4/16, \dots$

The next four rational numbers in the same patterns are:

$-1/4, -2/8, -3/12, -4/16, -5/20, -6/24, -7/28, -8/32$

(ii) $2/-3, -4/6, -6/9, -8/12, \dots$

The next four rational numbers in the same patterns are:

$2/-3, -4/6, -6/9, -8/12, -10/15, -12/18, -14/21, -16/24$

6. Which of the following pairs of rational numbers are equal?

(i) $-3/-7$ and $15/35$

(ii) $-6/8$ and $10/-15$

(iii) $6/-10$ and $-12/20$

Solution:

(i) $-3/-7$ and $15/35$

Let us simplify, we get

$-3/-7$ and $15/35$

<https://www.indcareer.com/schools/ml-aggarwal-solutions-for-class-7-maths-chapter-3-rational-numbers/>

$$(-3/-7) = (15/35)$$

Let us cross multiply, we get

$$(-3 \times 35) = (15 \times -7)$$

$$-105 = -105$$

$\therefore$ $-3/-7$ and $15/35$ are equal pairs.

(ii) $-6/8$ and $10/-15$

Let us simplify, we get

$-6/8$ and $10/-15$

$$(-6/8) = (10/-15)$$

Let us cross multiply, we get

$$(-6 \times -15) = (10 \times 8)$$

$$90 = 80$$

$\therefore$ $-6/8$ and $10/-15$ are not equal pairs.

(iii) $6/-10$ and $-12/20$

Let us simplify, we get

$6/-10$ and $-12/20$

$$(6/-10) = (-12/20)$$

Let us cross multiply, we get

$$(6 \times 20) = (-12 \times -10)$$

$$120 = 120$$

$\therefore$ $6/-10$ and $-12/20$ are equal pairs.

7. Which of the following pairs represent the same rational number?

(i) $-7/21$, $3/9$

(ii) $-16/20$, $20/-25$

(iii) $-3/5$, $-12/20$

<https://www.indcareer.com/schools/ml-aggarwal-solutions-for-class-7-maths-chapter-3-rational-numbers/>

(iv) $8/-5$, $-24/15$

Solution:

(i) $-7/21$, $3/9$

Let us simplify, we get

$$(-7/21) = (3/9)$$

$$(-1/3) = (1/3)$$

$$(-1/3) \neq (1/3)$$

$\therefore -7/21$, $3/9$ are not same rational numbers.

(ii) $-16/20$, $20/-25$

Let us simplify, we get

$$(-16/20) = (20/-25)$$

$$(-4/5) = (4/-5)$$

$$(-4/5) = (-4/5)$$

$\therefore -16/20$, $20/-25$ are same rational numbers.

(iii) $-3/5$, $-12/20$

Let us simplify, we get

$$(-3/5) = (-12/20)$$

$$(-3/5) = (-3/5)$$

$\therefore -3/5$, $-12/20$ are same rational numbers.

(iv) $8/-5$, $-24/15$

Let us simplify, we get

$$8/-5, -24/15$$

$$(8/-5) = (-24/15)$$

$$(8/-5) = (-8/5)$$

$$(-8/5) = (-8/5)$$

<https://www.indcareer.com/schools/ml-aggarwal-solutions-for-class-7-maths-chapter-3-rational-numbers/>

∴ $8/-5$, $-24/15$ are same rational numbers.



ML Aggarwal Solutions Class 7 Maths

- Chapter 1- Integers
- Chapter 2- Fractions and Decimals
- Chapter 3- Rational Numbers
- Chapter 4- Exponents and Powers
- Chapter 5- Sets
- Chapter 6- Ratio and Proportion
- Chapter 7- Percentage and Its Applications
- Chapter 8- Algebraic Expressions
- Chapter 9- Linear Equations and Inequalities
- Chapter 10- Lines and Angles
- Chapter 11- Triangles and its Properties
- Chapter 12- Congruence of Triangles
- Chapter 13- Practical Geometry
- Chapter 14- Symmetry
- Chapter 15- Visualising Solid Shapes
- Chapter 16- Perimeter and Area
- Chapter 17- Data Handling

<https://www.indcareer.com/schools/ml-aggarwal-solutions-for-class-7-maths-chapter-3-rational-numbers/>

About ML Aggarwal

M. L. Aggarwal, is an Indian mechanical engineer, educator. His achievements include research in solutions of industrial problems related to fatigue design. Recipient Best Paper award, Manipal Institute of Technology, 2004. Member of TSTE.

<https://www.indcareer.com/schools/ml-aggarwal-solutions-for-class-7-maths-chapter-3-rational-numbers/>

About IndCareer

IndCareer.com is a leading developer of online career guidance resources for the Indian marketplace. Established in 2007, IndCareer.com is currently used by over thousands of institutions across India, including schools, employment agencies, libraries, colleges and universities.

IndCareer.com is designed to assist you in making the right career decision - a decision that meets your unique interests and personality.

For any clarifications or questions you can write to **info@indcareer.com**

Postal Address

IndCareer.com
52, Shilpa Nagar,
Somalwada
Nagpur - 440015
Maharashtra, India

WhatsApp: +91 9561 204 888

Website: <https://www.indcareer.com>

<https://www.indcareer.com/schools/ml-aggarwal-solutions-for-class-7-maths-chapter-3-rational-numbers/>