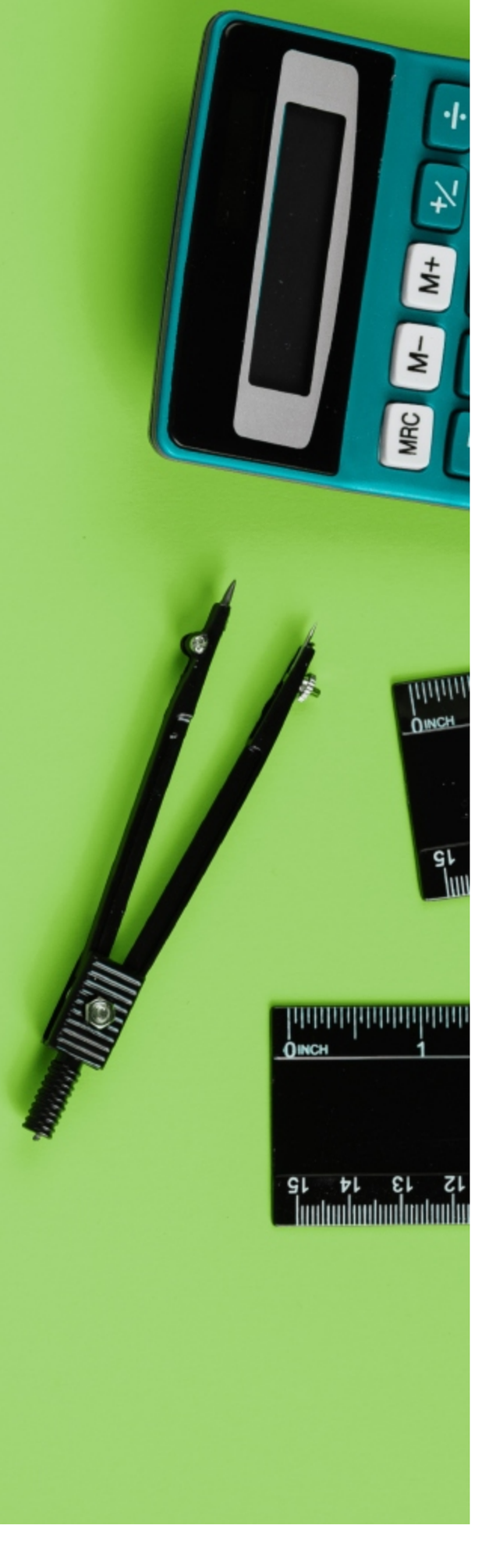
RD Sharma Solutions

Class 7

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Chapter-4

Rational numbers

Exercise 4.1

Q.1 Write down the numerator of each of the following rational numbers:

(i) $\frac{-7}{5}$ (ii) $\frac{15}{-4}$ (iii) $\frac{-17}{-21}$ (iv) $\frac{8}{9}$ (v) 5

Solution: (i) Numerator $= -7$

(ii) Numerator $= 15$

(iii) Numerator $= -17$

(iv) Numerator $= 8$

(v) Numerator $= 5$

Q.2 Write down the denominator of each of the following rational numbers.

(i) $\frac{-4}{5}$ (ii) $\frac{11}{-34}$ (iii) $\frac{-15}{-82}$ (iv) 15 (v) 0

Solution: (i) Denominator $= 5$

(ii) Denominator $= -34$

(iii) Denominator $= -82$

(iv) Denominator of $\frac{15}{1} = 1$

(v) Denominator of 0 is any non zero real number

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Q3 Write down the rational number whose numerator is $(-3) \times 4$, and whose denominator is $(34-23) \times (7-4)$

Solution numerator $= (-3) \times 4 = -12$

Denominator $= (34-23) \times (7-4)$

$= 11 \times 3 = 33$

$\therefore$ Rational number $= \frac{-12}{33}$

Q4 Write the following rational numbers as integers:

$$\frac{7}{1}, \frac{-12}{1}, \frac{34}{1}, \frac{-73}{1}, \frac{95}{1}$$

Solution: As if any number is divided by 1, the result is a number itself.

$7, -12, 34, -73, 95$

Q5 Write the following integers as rational number with denominator 1.

$-15, 17, 85, -100$

Solution: $\frac{-15}{1}, \frac{17}{1}, \frac{85}{1}, \frac{-100}{1}$

Q6 Write down the rational number whose numerator is the smallest three digit number and denominator is the largest four digit number.

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Solution: Smallest 3 digit number = 100

largest four digit number = 9999

$\therefore$ Rational number $= \frac{100}{9999}$

Q7 Separate positive and negative rational numbers from the following rational numbers.

Solution: $\frac{-5}{-7}, \frac{12}{-5}, \frac{7}{4}, \frac{13}{-9}, 0, \frac{-18}{-7}, \frac{-95}{116}, \frac{-1}{9}$

Positive rational numbers: $\frac{-5}{-7}, \frac{7}{4}, \frac{-18}{-7}$

Negative rational numbers: $\frac{12}{-5}, \frac{13}{-9}, \frac{-95}{116}, \frac{-1}{9}$

Q.8 Which of the following rational numbers are positive:

(i) $\frac{-8}{7}$ (ii) $\frac{9}{8}$ (iii) $\frac{-19}{-13}$ (iv) $\frac{-21}{13}$

Solution: (i) $\frac{-8}{7}$ — Negative rational nuber

(ii) $\frac{9}{8}$ — Positive rational number.

(iii) $\frac{-19}{-13}$ — Positive rational number.

(iv) $\frac{-21}{13}$ — Negative rational number.

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Q9 Which of the following rational numbers are negative? (i) $\frac{-3}{7}$ (ii) $\frac{-5}{-8}$ (iii) $\frac{9}{-83}$ (iv) $\frac{-115}{-197}$

Solution

Here (i) $\frac{-3}{7}$ and (iv) $\frac{9}{-83}$ are negative rational numbers

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