

Class - VII
Subject :- Math.
Chapter :- Rational number.

Ex = 4B page :- 66

2. Which of the two Rational numbers is greater in each of the following parts?

(i) $\frac{5}{6}$ or 0 .

$\frac{5}{6} > 0$.
∴ greater number = $\frac{5}{6}$.

(ii) $\frac{7}{9}$ or $\frac{5}{9}$.

$\frac{7}{9} > \frac{5}{9}$.
∴ greater number = $\frac{7}{9}$.

(iii) $\frac{6}{11}$ or $\frac{5}{11}$.

$\frac{6}{11} > \frac{5}{11}$.
∴ greater number = $\frac{6}{11}$.

3. Question number 2 (same).

4. Fill in the blanks with the correct symbol out of $>$, $=$ and $<$.

(i) $\frac{-3}{7} > \frac{6}{-13}$

$-0.42 > 0.46$

Rough
 $7 \overline{) 30.42} = 04$
 $\underline{-28}$
 20
 $\underline{-20}$
 0.42

$13 \overline{) 60.46} = 04$
 $\underline{-52}$
 80
 $\underline{-80}$
 0.46

(ii) $0 < \frac{-3}{-5}$

$0 < 0.6$

$5 \overline{) 30.6} = 6$

5. Ascending order.

(ii) $-\frac{3}{4}$; $\frac{5}{-12}$; $\frac{-7}{16}$; $\frac{9}{-24}$

$\frac{-3}{4} \times 48 = -36$
 $\frac{5}{-12} \times 48 = -20$
 $\frac{-7}{16} \times 48 = -21$
 $\frac{9}{-24} \times 48 = -18$

Rough
 $2 \overline{) 4, 12, 16, 24}$
 $2 \overline{) 2, 6, 8, 12}$
 $2 \overline{) 1, 3, 4, 6}$
 $3 \overline{) 1, 3, 2, 3}$
 $1, 1, 2, 1$
(48)

$$(ii) -36 < -21 < -20 < -18$$

$$\therefore -\frac{3}{4} < -\frac{7}{16} < -\frac{5}{12} < -\frac{9}{24}$$

Ans

6. Descending order.

$$(ii) -\frac{2}{1}, -\frac{13}{6}, -\frac{8}{3}, \frac{1}{3}$$

$$3 \overline{) 1, 6, 3, 3}$$

$$1, 2, 1, 1$$

d.c.m = 6

$$-\frac{2}{1} \times 6 = -12$$

$$-\frac{13}{6} \times 6 = -13$$

$$\frac{8}{-3} \times 6 = -16$$

$$\frac{1}{3} \times 6 = 2$$

$$\therefore -2 > -12 > -13 > -16$$

$$\frac{1}{3} > -2 > -\frac{13}{6} > -\frac{8}{3}$$

Ans

7. which of the following statement- are true?

(i) True

(ii)

(iii) True

(iv)

(v) True

8. Find five Rational numbers between -3 and -2 .

Sol: we may write that

$$\textcircled{-3} < -2.9 < -2.8 < -2.7 < -2.6 < -2.5 < -2.4 < -2.3 < -2.2 < -2.1 < \textcircled{-2}$$

Therefore, -3 and -2 between the five Rational numbers are,

$$-2.9 < -2.8 < -2.7 < -2.6 < -2.5 \\ = \frac{-29}{10} < \frac{-28}{10} < \frac{-27}{10} < \frac{-26}{10} < \frac{-25}{10}$$

Ans.

10. Find five rational numbers between $-\frac{3}{5}$ and $-\frac{1}{2}$.

Sol: L.C.M of 5 and 2 is 10.

$$-\frac{3}{5} = \frac{-3 \times 5}{5 \times 5} = \frac{-15}{25}$$

$$\frac{-15 \times 2}{25 \times 2} = \frac{-30}{50}$$

$$-\frac{1}{2} = \frac{1 \times 5}{2 \times 10} = \frac{-5}{10}$$

~~$\frac{-15 \times 2}{10}$~~

$$-\frac{1}{2} = \frac{-1 \times 5}{2 \times 5} = \frac{-5}{10}$$

$$-\frac{5 \times 5}{10 \times 5} = \frac{-25}{50}$$

clearly, $-\frac{30}{50} < -\frac{29}{50} < -\frac{28}{50} < -\frac{27}{50} < -\frac{26}{50} < -\frac{25}{50}$

The five rational numbers between

$-\frac{3}{5}$ and $-\frac{1}{2}$ are

$$-\frac{29}{50} < -\frac{28}{50} < -\frac{27}{50} < -\frac{26}{50} < -\frac{26.1}{50}$$

EX = 4B (all)

Subject - Math.

Chapter - Rational number.

Ex = 4 c page :- 69

1. Add the following rational no.

(i) $\frac{12}{7}$ and $\frac{3}{7}$

$$= \frac{12}{7} + \frac{3}{7}$$

L.C.M of 7 and 7 is 7

$$= \frac{12+3}{7} = \frac{15}{7} \text{ Ans}$$

$$\begin{array}{r} 7 \overline{) 7, 7} \\ \underline{7} \\ 0 \\ \underline{7} \\ 0 \end{array}$$

(ii) $\frac{-2}{9}$ and $\frac{-5}{9}$

$$= \frac{-2}{9} + \frac{(-5)}{9}$$

L.C.M of 9 and 9 = 9

$$= \frac{-2+(-5)}{9} = \frac{-2-5}{9}$$

$$= \frac{-7}{9} \text{ Ans}$$

$$\begin{array}{r} 9 \overline{) 9, 9} \\ \underline{9} \\ 0 \\ \underline{9} \\ 0 \end{array}$$

2. Question 2 same to
Question number 1.

3. Evaluate:

$$(iii) \quad \frac{11}{-12} + \frac{3}{-8} + \frac{1}{4}$$

$$= \frac{-11}{12} - \frac{3}{8} + \frac{1}{4}$$

L.C.M of 12, 8 and 4 = 24

$$\begin{array}{r} 2 \overline{) 12, 8, 4} \\ 2 \overline{) 6, 4, 2} \\ \quad 3, 2, 1 \end{array}$$

$$\frac{-22 - 9 + 6}{24}$$

$$= \frac{-31 + 6}{24} = \frac{-25}{24} \text{ Ans}$$

4. Simplify:

$$(i) \quad \frac{-8}{15} + \frac{2}{-3}$$

$$= \frac{-8}{15} - \frac{2}{3}$$

L.C.M of 15 and 3 = 15

$$\frac{-8 - 10}{15} = \frac{-18}{15} \text{ Ans}$$

$$\begin{array}{r} 3 \overline{) 15, 3} \\ \quad 5, 1 \end{array}$$

subject:- math

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Ex = 40 page:- 72

1. Find the additive inverse

(i) 5
Additive inverse of 5 is -5

(iv) $-\frac{11}{15}$
Additive inverse of $-\frac{11}{15}$ is $\frac{11}{15}$

2. Subtract:-

(i) $\frac{3}{4}$ from $\frac{1}{3}$

$$= \frac{1}{3} - \frac{3}{4}$$

d.c.m of 3 and 4 = 12

$$= \frac{4-9}{12} = -\frac{5}{12} \text{ Ans}$$

(ii) $-\frac{13}{9}$ from 0

$$= 0 - \frac{(-13)}{9} = \frac{13}{9} \text{ Ans}$$

$$= 0 + \frac{13}{9}$$

$$\begin{array}{r} 3 \overline{) 3, 4} \\ \underline{3, 4} \\ 0, 0 \end{array}$$

$$(i) \frac{3}{4} - \frac{4}{5}$$

∴ L.C.M of 4 and 5 = 20

$$\frac{15 - 16}{20}$$

$$= \frac{-1}{20} \text{ Ans.}$$

$$(vii) \frac{-5}{14} - \frac{-2}{7}$$

∴ L.C.M of 14 and 7 = 14

$$= \frac{-5 - (-4)}{14}$$

$$= \frac{-5 + 4}{14} = \frac{-1}{14} \text{ Ans.}$$

4. Subtract the sum of $\frac{-36}{11}$ and $\frac{49}{22}$ from the sum of $\frac{33}{8}$ and $\frac{-19}{4}$

Sum of $\frac{-36}{11}$ and $\frac{49}{22}$

$$= \frac{-36}{11} + \frac{49}{22}$$

$$= \frac{-72 + 49}{22} = \frac{-23}{22} //$$

sum of $\frac{33}{8}$ and $-\frac{19}{4}$

$$= \frac{33}{8} + \frac{-19}{4}$$

$$= \frac{33 - 38}{8} = -\frac{5}{8}$$

A.T.Q subtract $-\frac{23}{22}$ from $-\frac{5}{8}$

$$= -\frac{5}{8} - \frac{(-23)}{22}$$

$$= -\frac{5}{8} + \frac{23}{22}$$

$\begin{array}{l} 2 \sqrt{8, 22} \\ \underline{4, 11} \end{array}$

$$= \frac{-55 + 92}{88}$$

$$= \frac{37}{88} \quad \text{Ans //}$$

5. The sum of two rational numbers is $\frac{4}{21}$. If one of them is $\frac{5}{7}$; find the other.

Let, the required number be x .

Then, $\frac{5}{7} + x = \frac{4}{21}$ (According to the question)

$$\Rightarrow x = \frac{4}{21} - \frac{5}{7}$$

$$\Rightarrow x = \frac{4 - 15}{21} \quad \therefore x = -\frac{11}{21}$$

Ans //

9. what should be added
to $-\frac{3}{8}$ to get $\frac{5}{12}$?

Let, the required number
be x . Then,

$$\frac{2 \rightarrow}{8} \quad -\frac{3}{8} + x = \frac{5}{12} \quad (\text{A.T.Q})$$

$$\Rightarrow x = \frac{5}{12} + \frac{3}{8}$$

$$\begin{array}{r} 2 \overline{) 12, 8} \\ \underline{24} \\ 3, 2 \end{array}$$

$$\Rightarrow x = \frac{10 + 9}{24}$$

$$\therefore x = \frac{19}{24} \text{ Ans.}$$

14. what should be ~~st~~ subtracted
from $-\frac{3}{4}$ to get $\frac{5}{6}$?

Let, the required number to
be subtracted be x . Then
(A.T.Q)

$$-\frac{3}{4} - x = \frac{5}{6}$$

$$\Rightarrow -x = \frac{5}{6} + \frac{3}{4}$$

$$\Rightarrow -x = \frac{10 + 9}{12}$$

$$\Rightarrow -x = \frac{19}{12}$$

$$\therefore x = \frac{-19}{12} \text{ Ans.}$$

Ans //

11 to 16) all

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class-vii
subject:- math.

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Ex = 4E, page = 75

1. Multiply.

$$(i) \quad \frac{3}{4} \text{ by } \frac{5}{7}$$

$$= \frac{3}{4} \times \frac{5}{7} = \frac{3 \times 5}{4 \times 7}$$

$$= \frac{15}{28} \text{ Ans. //}$$

$$(viii) \quad \frac{-36}{5} \text{ by } \frac{20}{-3}$$

$$= \frac{-36}{5} \times \frac{20}{-3} \quad [- \times - = +]$$

$$= \frac{36}{1} \times \frac{4}{3}$$

$$= \frac{12 \times 4}{1 \times 1} = \frac{48}{1} = 48 \text{ Ans. //}$$

2. Simplify:-

$$(i) \frac{3}{205} \times \frac{4}{5}$$

$$= \frac{3 \times 4}{5 \times 5} = \frac{3}{25} \text{ Ans. //}$$

$$(ii) -32 \times \frac{-7}{36}$$

$$= \frac{32}{1} \times \frac{7}{36} \quad [- \times - = +]$$

$$= \frac{16}{1} \times \frac{7}{18}$$

$$= \frac{8 \times 7}{1 \times 9} = \frac{56}{9} \text{ Ans. //}$$

3. Simplify:-

Question number 3. Same
to question number 2.

4. Simplify.

$$(i) \left(\frac{13}{8} \times \frac{12}{13} \right) + \left(\frac{-4}{9} \times \frac{3}{-2} \right)$$
$$= \left(\frac{1 \times 12^3}{28 \times 1} \right) + \left(\frac{4^2}{9 \times 3} \times \frac{3}{2} \right)$$

$$= \frac{12}{28} \left(\frac{1 \times 3}{2 \times 1} \right) + \left(\frac{2 \times 1}{3 \times 1} \right)$$

$$= \frac{3}{2} + \frac{2}{3}$$

$$= \frac{9+4}{6}$$

$$= \frac{13}{6} \text{ Ans.}$$

4. According to the question.

1 m cloth cost Rs $40\frac{1}{2}$

$\therefore 3\frac{1}{3}$ m " " " Rs $40\frac{1}{2} \times 3\frac{1}{3}$

$$= \text{Rs } \frac{80}{2} \times \frac{10}{3}$$

$$= \text{Rs } \frac{400}{3} \text{ Ans.}$$

Hlw Ex = 4E (1 to 6) All.

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subject - math.

Ex = 4F : page 78

1. Find the Reciprocal.

(i) -16

Reciprocal of -16 is $\frac{1}{-16}$

(ii)

$\frac{-3}{-5}$

Reciprocal of $\frac{-3}{-5}$ is $\frac{5}{3}$.

2. Simplify:-

$$(i) \frac{4}{9} \div \left(\frac{-5}{12} \right)$$

$$= \frac{4}{9} \times \frac{12}{-5}$$

$$= \frac{4 \times 4}{3 \times -5} = \frac{16}{-15} \text{ Ans. } //$$

3. Fill in the blanks.

$$(i) (\dots) \div \left(\frac{-7}{5}\right) = \frac{10}{19}$$

Let, the required number be x .

$$x \div \left(\frac{-7}{5}\right) = \frac{10}{19}$$

$$\Rightarrow x \times \frac{5}{-7} = \frac{10}{19}$$

$$\Rightarrow x = \frac{10 \times -7}{19 \times 5} \quad (\text{Cross Multi.})$$

$$\Rightarrow x = \frac{2 \times -7}{19 \times 1}$$

$$\Rightarrow x = \frac{-14}{19} \quad \text{Ans. //}$$

4. Their sum.

$$\frac{65}{12} + \frac{8}{3}$$

$$= \frac{65 + 32}{12}$$

$$= \frac{97}{12}$$

Their difference,

$$\frac{65}{12} - \frac{8}{3}$$

$$65 - 32$$

$$= \frac{33}{12}$$

$$= 2 \frac{33}{12}$$

According to the question,

divide.

$$\frac{97}{12} \div \frac{33}{12}$$

$$= \frac{97}{12} \times \frac{12}{33}$$

$$= \frac{97}{33} \text{ Ans. //}$$

5. Let, The required number be x .

According to the question,

$$\frac{44}{9} \div \frac{x}{1} = \frac{11}{3}$$

$$\Rightarrow \frac{44}{9} \times \frac{1}{x} = \frac{11}{3}$$

$$\Rightarrow \frac{-44}{9x} = \frac{-11}{3}$$

Now cross multiplication.

$$\Rightarrow 9x \times -11 = -44 \times 3$$

$$\Rightarrow x = \frac{-44 \times 3}{-11 \times 9}$$

$$\Rightarrow x = \frac{-4 \times 1}{-1 \times 3}$$

$$\Rightarrow x = \frac{4}{3}$$

$$\therefore x = \frac{4}{3} \text{ Ans //}$$

7. Let, the other required number

be x .

According to the question,

$$-8 \times x = 10$$

$$\Rightarrow x = \frac{10}{-8}$$

$$\therefore x = -\frac{5}{4} \text{ Ans. //}$$

H/w

EX = 4F (All)

1 to 13

How are you?

please students always math.
doing at home and
take care study and
health.