PRACTICE QUESTIONS
CLASS VII: CHAPTER - 9
RATIONAL NUMBERS

1. Fill in the boxes:

(i) $\frac{5}{4}=\frac{\square}{16}=\frac{25}{\square}=\frac{-15}{\square}$

(ii) $\frac{-3}{7}=\frac{\square}{14}=\frac{9}{\square}=\frac{-6}{\square}$

2. Reduce to the standard form: $(i)\frac{-45}{30}$ $(ii)\frac{36}{-24}$ $(iii)\frac{-3}{-15}$ $(iv)\frac{-18}{45}$ $(v)\frac{-12}{18}$

3. Find five rational numbers between $\frac{-5}{7}$ *and* $\frac{-3}{8}$.

4. List three rational numbers between – 2 and – 1.

5. Write four more numbers in the following pattern: $\frac{-1}{3},\frac{-2}{6},\frac{-3}{9},\frac{-4}{12},.....$

6. Which is greater in each of the following:

$(i)\frac{2}{3},\frac{5}{2}$ $(ii)\frac{-5}{6},\frac{-4}{3}$ $(iii)\frac{-3}{4},\frac{2}{-3}$

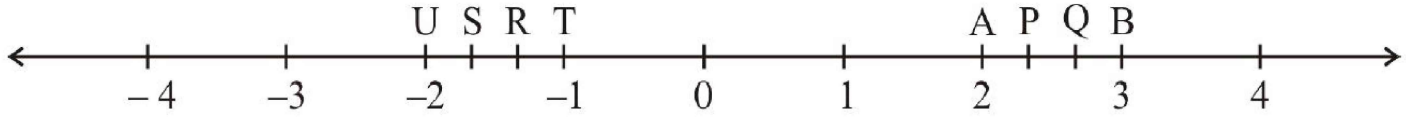
$(iv)\frac{-1}{4},\frac{1}{4}$ *and* $(v)-3\frac{2}{7},-3\frac{4}{5}$

7. Write the following rational numbers ion ascending order:

$(i)\frac{-3}{5},\frac{-2}{5},\frac{-1}{5}$ $(ii)\frac{-1}{3},\frac{-2}{9},\frac{-4}{3}$ $(iii)\frac{-3}{7},\frac{-3}{2},\frac{-3}{4}$

8. Write the following rational numbers in descending order: $\frac{-1}{3},\frac{-2}{9},\frac{-4}{3}$

9. The points P, Q, R, S, T, U, A and B on the number line are such that, TR = RS = SU and AP = PQ = QB. Name the rational numbers represented by P, Q, R and S.



10. Give four rational numbers equivalent to:

$(i)\frac{-2}{7}$ $(ii)\frac{5}{-3}$ $(iii)\frac{4}{9}$

11. Draw the number line and represent the following rational numbers on it:

$(i)\frac{3}{4}\quad (ii)\frac{-5}{8}\quad (iii)\frac{-7}{4}\quad (iv)\frac{7}{8}$

12. What will be the additive inverse of $\frac{-3}{9}, \frac{-9}{11}, \frac{5}{7}$?

13. Satpal walks $\frac{2}{3}$ km from a place P, towards east and then from there $1\frac{5}{7}$ km towards west. Where will he be now from P?

14. Find: $(i)\frac{7}{9}-\frac{2}{5}\quad (ii)2\frac{1}{5}-\frac{(-1)}{3}$

15. Find: $(i)\frac{2}{3}\times\frac{-7}{8}\quad (ii)\frac{-6}{7}\times\frac{5}{7}$

16. What will be the reciprocal of $\frac{-6}{11}$ and $\frac{-8}{5}$?

17. Find the sum:

$(i)\frac{5}{4}+\left(\frac{-11}{4}\right)\quad (ii)\frac{-8}{19}+\frac{(-2)}{57}\quad (iii)-2\frac{1}{3}+4\frac{3}{5}\quad (iv)\frac{-9}{10}+\frac{22}{15}$

18. Find:

$(i)\frac{7}{24}-\frac{17}{36}\quad (ii)\frac{5}{63}-\left(\frac{-6}{21}\right)\quad (iii)\frac{-6}{13}-\left(\frac{-7}{15}\right)$

19. Find the product:

$(i)\frac{9}{2}\times\left(\frac{-7}{4}\right)\quad (ii)\frac{-6}{15}\times\frac{9}{11}\quad (iii)\frac{3}{7}\times\left(\frac{-2}{5}\right)$

20. Find the value of:

$(i)\frac{-3}{5}\div 2\quad (ii)\frac{-4}{5}\div(-3)\quad (iii)\frac{-1}{8}\div\frac{3}{4}\quad (iv)\frac{-2}{13}\div\frac{1}{7}\quad (v)\frac{-7}{12}\div\left(\frac{-2}{13}\right)$

21. Find $\frac{3}{7}+\left(\frac{-6}{11}\right)+\left(\frac{-8}{21}\right)+\frac{5}{22}$

22. Find $\frac{-4}{5}\times\frac{3}{7}\times\frac{15}{16}\times\left(\frac{-14}{9}\right)$

23. Find using distributive property: $(i)\left\{\frac{7}{5}\times\left(\frac{-3}{12}\right)\right\}+\left\{\frac{7}{5}\times\frac{5}{12}\right\}\quad (ii)\left\{\frac{9}{16}\times\frac{4}{12}\right\}+\left\{\frac{9}{16}\times\frac{-3}{9}\right\}$

24. Find $\frac{2}{5}\times\frac{-3}{7}-\frac{1}{14}-\frac{3}{7}\times\frac{3}{5}$

25. Simplify: $\frac{-4}{5} \times \frac{3}{7} \times \frac{15}{16} \times \left(\frac{-14}{9}\right)$

26. Multiply $\frac{6}{13}$ by the reciprocal of $\frac{-7}{16}$.

27. What number should be added to $\frac{7}{12}$ to get $\frac{4}{15}$?

28. What number should be subtracted from $-\frac{3}{5}$ to get –2?

29. Write any 3 rational numbers between –2 and 0.

30. Find any ten rational numbers between $\frac{-5}{6} and \frac{5}{8}$

31. Find three rational numbers between $\frac{1}{4} and \frac{1}{2}$

32. Find ten rational numbers between $\frac{1}{4} and \frac{1}{2}$

33. Represent these numbers on the number line. $(i)\frac{7}{4}$ $(ii)\frac{-5}{6}$ $(iii)\frac{4}{7}$ $(iv)\frac{9}{4}$

34. Represent $\frac{-2}{11}, \frac{-5}{11}, \frac{-9}{11}$ on the number line

35. Find five rational numbers between $(i)\frac{2}{3} and \frac{4}{5}$ $(ii)\frac{-3}{2}$ and $\frac{5}{3}$

36. Find five rational numbers between $\frac{1}{4}$ and $\frac{1}{2}$

37. Write five rational numbers greater than –2

38. Find ten rational numbers between $\frac{3}{5} and \frac{3}{4}$.

39. Write.

(i) The rational number that does not have a reciprocal.
(ii) The rational numbers that are equal to their reciprocals.
(iii) The rational number that is equal to its negative.

40. Write five rational numbers which are smaller than 2.