EXERCISE 9.1

1. List five rational numbers between:

   (i) -1 and 0 (ii) -2 and -1 (iii) $\frac{-4}{5}$ and $\frac{-2}{3}$ (iv) $\frac{1}{2}$ and $\frac{2}{3}$

2. Write four more rational numbers in each of the following patterns:

   (i) $\frac{-3}{5}\ \frac{-6}{10}\ \frac{-9}{15}\ \frac{-12}{20}$ $\frac{-1}{4}\ \frac{3}{8}\ \frac{-2}{12}$

   (iii) $\frac{-1}{6}, \frac{2}{-12}, \frac{3}{-18}, \frac{4}{-24}, \ldots\ldots$ (iv) $\frac{-2}{3}, \frac{2}{-3}, \frac{4}{-6}, \frac{6}{-9}, \ldots\ldots$

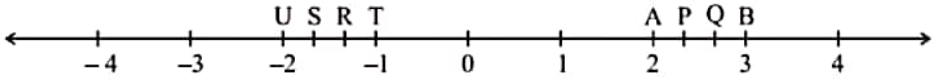
3. Give four rational numbers equivalent to:

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

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

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

5. 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.



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

   (i) $\frac{-7}{21}$ and $\frac{3}{9}$ (ii) $\frac{-16}{20}$ and $\frac{20}{-25}$ (iii) $\frac{-2}{-3}$ and $\frac{2}{3}$

   (iv) $\frac{-3}{5}$ and $\frac{-12}{20}$ (v) $\frac{8}{-5}$ and $\frac{-24}{15}$ (vi) $\frac{1}{3}$ and $\frac{-1}{9}$

   (vii) $\frac{-5}{-9}$ and $\frac{5}{-9}$

7. Rewrite the following rational numbers in the simplest form:

   (i) $\frac{-8}{6}$ (ii) $\frac{25}{45}$ (iii) $\frac{-44}{72}$ (iv) $\frac{-8}{10}$

8. Fill in the boxes with the correct symbol out of >, <, and =.

   (i) $\frac{-5}{7} \square \frac{2}{3}$ (ii) $\frac{-4}{5} \square \frac{-5}{7}$ (iii) $\frac{-7}{8} \square \frac{14}{-16}$

   (iv) $\frac{-8}{5} \square \frac{-7}{4}$ (v) $\frac{1}{-3} \square \frac{-1}{4}$ (vi) $\frac{5}{-11} \square \frac{-5}{11}$

   (vii) $0 \square \frac{-7}{6}$