INTERNATIONAL INDIAN SCHOOL BURAIDAH

Worksheet for the Academic Year 2023-24

CLASS: VII SUBJECT: MATHEMATICS DATE:10-12-2023

LESSON: 9 – RATIONAL NUMBERS

1. Write the following rational numbers as positive and negative rational numbers.
   a) $\frac{-7}{10}$ b) $\frac{-8}{16}$ c) $\frac{4}{11}$ d) $\frac{15}{-3}$ e) $\frac{-9}{-50}$ f) $\frac{6}{9}$
2. Write five rational numbers equivalent to $\frac{-3}{7}$
3. Find the standard form of a) $\frac{-18}{-90}$ b) $\frac{81}{-135}$
4. Write the given rational numbers in ascending order.
   a) $\frac{1}{2}$ $\frac{2}{3}$ $\frac{-1}{3}$ $\frac{-5}{6}$ b) $\frac{5}{6}$ $\frac{-7}{12}$ $\frac{-1}{2}$ $\frac{1}{3}$
5. Represent the rational numbers $\frac{-3}{4}$, $\frac{1}{8}$, $\frac{-7}{8}$, $\frac{-5}{4}$ on a number line.
6. Which of the following pairs represent the same rational number
   a) $\frac{-9}{27}$ $\frac{-5}{15}$ b) $\frac{-11}{5}$ $\frac{33}{-15}$ c) $\frac{-2}{6}$ $\frac{2}{-6}$
7. List four rational numbers between the given rational numbers.
   a) -4 and -5 b) $\frac{-3}{8}$ and $\frac{-2}{5}$
8. Fill in the boxes with the correct symbol (<, > or =)
   a) $\frac{-5}{3} \square \frac{-3}{5}$ b) $\frac{-9}{32} \square \frac{27}{-96}$
   c) $\frac{-2}{5} \square \frac{-4}{9}$ d) $0 \square \frac{-9}{16}$
9. Solve a) $\frac{-5}{6} + \frac{-4}{5}$ b) $(\frac{-1}{6}) + (\frac{-7}{18})$
   c) $(-7\frac{1}{2}) + (9\frac{1}{3})$ d) $\frac{-7}{25} - \frac{4}{25}$
   e) $\frac{1}{2} - (\frac{-3}{4})$ f) $\frac{-31}{60} - (\frac{29}{36})$
   g) $(\frac{-15}{8}) \times (\frac{-3}{11})$ h) $(\frac{5}{21}) \times \frac{-42}{15}$

i) $(-4\frac{1}{5}) \times (-2\frac{1}{2})$ j) $(\frac{-2}{3}) \div (\frac{1}{4})$

k) $-16 \div (\frac{-8}{7})$ l) $1\frac{1}{2} \div (-3\frac{1}{4})$

Answers:

1. a, b, d – Negative rational numbers
   c, e, f – Positive rational numbers
2. $\frac{-3}{7} = \frac{-6}{14} = \frac{-9}{21} = \frac{-12}{28} = \frac{-1}{35} = \frac{-18}{42}$
3. a) $\frac{1}{5}$ b) $\frac{-3}{5}$ 4) a) $\frac{-5}{6} < \frac{-1}{3} < \frac{1}{2} < \frac{2}{3}$ b) $\frac{-7}{12} < \frac{-1}{2} < \frac{1}{3} < \frac{5}{6}$

6)a, b, c – Same

7) a) $-4 > \frac{-41}{10} > \frac{-42}{10} > \frac{-43}{10} > \frac{-44}{10} > -5$

b) $\frac{-3}{8} > \frac{-151}{400} > \frac{-152}{400} > \frac{-153}{400} > \frac{-154}{400} > \frac{-2}{5}$

8) a)< b) = c) > d) >

9) a) $\frac{-49}{30}$ b) $\frac{-5}{9}$ c) $\frac{11}{6}$ d) $\frac{-11}{25}$ e) $\frac{5}{4}$ f) $\frac{-119}{90}$
g) $\frac{45}{88}$ h) $\frac{-2}{3}$ i) $\frac{21}{2}$ j) $\frac{-8}{3}$ k) 14 l) $\frac{-6}{13}$

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