EduSahara™ Assignment

Name : Rational Number Properties

Chapter : Rational and Irrational Numbers

Grade : ICSE Grade IX

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1. The additive inverse of $\frac{1}{3}$ is

(i) $\frac{3}{1}$ (ii) 0 (iii) $\frac{3}{-1}$ (iv) $(-1\frac{1}{3})$ (v) $(\frac{-1}{3})$

2. The multiplicative inverse of $\frac{3}{2}$ is

(i) $\frac{2}{3}$ (ii) $1\frac{2}{3}$ (iii) $(\frac{-1}{3})$ (iv) $2\frac{2}{3}$ (v) $(-1\frac{1}{3})$

3. The additive inverse of $\frac{5}{8}$ is

(i) $(-1\frac{5}{8})$ (ii) $\frac{8}{-5}$ (iii) $(\frac{-5}{8})$ (iv) $\frac{8}{5}$ (v) 0

4. The multiplicative inverse of $(\frac{-5}{2})$ is

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

5. The additive inverse of $\frac{7}{8}$ is

(i) $(-1\frac{7}{8})$ (ii) 0 (iii) $\frac{8}{-7}$ (iv) $(\frac{-7}{8})$ (v) $\frac{8}{7}$

6. The multiplicative inverse of $\frac{3}{2}$ is

(i) $1\frac{2}{3}$ (ii) $\frac{2}{3}$ (iii) $2\frac{2}{3}$ (iv) $(-1\frac{1}{3})$ (v) $(\frac{-1}{3})$

7. Which of the following are true?

a) $\frac{19}{2}+\frac{98}{15}=\frac{98}{15}+\frac{19}{2}$

b) $\frac{4}{7}-\frac{98}{15}=\frac{98}{15}-\frac{4}{7}$

c) $\frac{4}{7}\div\frac{86}{15}=\frac{86}{15}\div\frac{4}{7}$

d) $\frac{19}{2}\times\frac{86}{15}=\frac{86}{15}\times\frac{19}{2}$

(i) {b,c,a} (ii) {b,d,a} (iii) {b,a} (iv) {c,d} (v) {a,d}

8. Which of the following are true?

a) $\frac{1}{4} \div (\frac{124}{13} \div \frac{20}{9}) = (\frac{1}{4} \div \frac{124}{13}) \div \frac{20}{9}$

b) $\frac{17}{18} + (\frac{64}{11} + \frac{18}{11}) = (\frac{17}{18} + \frac{64}{11}) + \frac{18}{11}$

c) $\frac{1}{4} - (\frac{64}{11} - \frac{17}{4}) = (\frac{1}{4} - \frac{64}{11}) - \frac{17}{4}$

d) $\frac{17}{18} \times (\frac{124}{13} \times \frac{2}{19}) = (\frac{17}{18} \times \frac{124}{13}) \times \frac{2}{19}$

(i) {b,d} (ii) {a,d,b} (iii) {c,d} (iv) {a,c,b} (v) {a,b}

9. Which of the following are true?

a) $\frac{4}{7} - (\frac{58}{11} \times \frac{4}{19}) = (\frac{4}{7} - \frac{58}{11}) \times (\frac{4}{7} - \frac{4}{19})$

b) $\frac{1}{9} \times (\frac{29}{2} + \frac{1}{11}) = (\frac{1}{9} \times \frac{29}{2}) + (\frac{1}{9} \times \frac{1}{11})$

c) $\frac{1}{9} \times (\frac{58}{11} - \frac{16}{13}) = (\frac{1}{9} \times \frac{58}{11}) - (\frac{1}{9} \times \frac{16}{13})$

d) $\frac{4}{7} \div (\frac{29}{2} + \frac{11}{3}) = (\frac{4}{7} \div \frac{29}{2}) + (\frac{4}{7} \div \frac{11}{3})$

(i) {a,b} (ii) {b,c} (iii) {a,c,b} (iv) {d,c} (v) {a,d,b}

10. Which of the following are true?

a) $\frac{3}{11} \times \frac{109}{13} = \frac{109}{13} \times \frac{3}{11}$

b) $\frac{11}{18} - \frac{73}{8} = \frac{73}{8} - \frac{11}{18}$

c) $\frac{11}{18} \div \frac{109}{13} = \frac{109}{13} \div \frac{11}{18}$

d) $\frac{3}{11} + \frac{73}{8} = \frac{73}{8} + \frac{3}{11}$

(i) {c,d} (ii) {b,a} (iii) {a,d} (iv) {b,c,a} (v) {b,d,a}

11. Which of the following are true?

a) $\frac{13}{16} + (\frac{169}{20} + \frac{1}{16}) = (\frac{13}{16} + \frac{169}{20}) + \frac{1}{16}$

b) $\frac{17}{3} - (\frac{169}{20} - \frac{1}{2}) = (\frac{17}{3} - \frac{169}{20}) - \frac{1}{2}$

c) $\frac{13}{16} \times (\frac{83}{9} \times \frac{7}{19}) = (\frac{13}{16} \times \frac{83}{9}) \times \frac{7}{19}$

d) $\frac{17}{3} \div (\frac{83}{9} \div \frac{1}{15}) = (\frac{17}{3} \div \frac{83}{9}) \div \frac{1}{15}$

(i) {a,c} (ii) {b,a} (iii) {b,c,a} (iv) {b,d,a} (v) {d,c}

12. Which of the following are true?

a) $\frac{14}{17} \div (\frac{32}{3} + \frac{13}{16}) = (\frac{14}{17} \div \frac{32}{3}) + (\frac{14}{17} \div \frac{13}{16})$

b) $\frac{14}{17} - (\frac{79}{11} \times \frac{7}{3}) = (\frac{14}{17} - \frac{79}{11}) \times (\frac{14}{17} - \frac{7}{3})$

c) $\frac{11}{15} \times (\frac{79}{11} - \frac{5}{6}) = (\frac{11}{15} \times \frac{79}{11}) - (\frac{11}{15} \times \frac{5}{6})$

d) $\frac{11}{15} \times (\frac{32}{3} + \frac{11}{2}) = (\frac{11}{15} \times \frac{32}{3}) + (\frac{11}{15} \times \frac{11}{2})$

(i) {b,d} (ii) {a,d,c} (iii) {a,b,c} (iv) {a,c} (v) {c,d}

13. Which of the following are true?

a) $\frac{17}{14} + \frac{113}{17} = \frac{113}{17} + \frac{17}{14}$

b) $\frac{17}{10} \div \frac{39}{4} = \frac{39}{4} \div \frac{17}{10}$

c) $\frac{17}{14} \times \frac{39}{4} = \frac{39}{4} \times \frac{17}{14}$

d) $\frac{17}{10} - \frac{113}{17} = \frac{113}{17} - \frac{17}{10}$

(i) {b,c,a} (ii) {a,c} (iii) {b,a} (iv) {d,c} (v) {b,d,a}

14. Which of the following are true?

a) $\frac{17}{10} \div (\frac{25}{2} \div \frac{19}{12}) = (\frac{17}{10} \div \frac{25}{2}) \div \frac{19}{12}$

b) $\frac{4}{5} \times (\frac{25}{2} \times \frac{13}{12}) = (\frac{4}{5} \times \frac{25}{2}) \times \frac{13}{12}$

c) $\frac{17}{10} - (\frac{19}{6} - \frac{2}{13}) = (\frac{17}{10} - \frac{19}{6}) - \frac{2}{13}$

d) $\frac{4}{5} + (\frac{19}{6} + \frac{4}{17}) = (\frac{4}{5} + \frac{19}{6}) + \frac{4}{17}$

(i) {a,b} (ii) {a,d,b} (iii) {c,d} (iv) {a,c,b} (v) {b,d}

15. Which of the following are true?

a) $\frac{17}{15} \times (\frac{26}{15} + \frac{6}{7}) = (\frac{17}{15} \times \frac{26}{15}) + (\frac{17}{15} \times \frac{6}{7})$

b) $\frac{9}{17} \div (\frac{26}{15} + \frac{13}{5}) = (\frac{9}{17} \div \frac{26}{15}) + (\frac{9}{17} \div \frac{13}{5})$

c) $\frac{17}{15} \times (\frac{37}{17} - \frac{15}{13}) = (\frac{17}{15} \times \frac{37}{17}) - (\frac{17}{15} \times \frac{15}{13})$

d) $\frac{9}{17} - (\frac{37}{17} \times \frac{10}{13}) = (\frac{9}{17} - \frac{37}{17}) \times (\frac{9}{17} - \frac{10}{13})$

(i) {b,d,a} (ii) {b,a} (iii) {a,c} (iv) {b,c,a} (v) {d,c}

Assignment Key

1) (v)	2) (i)	3) (iii)	4) (iv)	5) (iv)	6) (ii)
7) (v)	8) (i)	9) (ii)	10) (iii)	11) (i)	12) (v)
13) (ii)	14) (v)	15) (iii)			