EduSahara™ Assignment

Name : Properties of Rational Numbers

Chapter : Rational Numbers

Grade : SSC Grade VIII

1. The reciprocal of $\frac{9}{5}$ is

   (i) $1\frac{5}{9}$ (ii) $(\frac{-4}{9})$ (iii) $(-1\frac{4}{9})$ (iv) $2\frac{5}{9}$ (v) $\frac{5}{9}$

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

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

3. The multiplicative inverse of $\frac{9}{8}$ is

   (i) $(-1\frac{1}{9})$ (ii) $2\frac{8}{9}$ (iii) $\frac{8}{9}$ (iv) $1\frac{8}{9}$ (v) $(\frac{-1}{9})$

4. Which of the following are true?

   a) $3-8=8-3$
   b) $8\div19=19\div8$
   c) $19\times6=6\times19$
   d) $6+3=3+6$

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

5. Which of the following are true?

   a) $10-(2-4)=(10-2)-4$
   b) $18+(10+2)=(18+10)+2$
   c) $4\times(18\times10)=(4\times18)\times10$
   d) $2\div(4\div18)=(2\div4)\div18$

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

6. Which of the following are true?

   a) $9\div(3+6)=(9\div3)+(9\div6)$
   b) $6\times(7-9)=(6\times7)-(6\times9)$
   c) $7-(9\times3)=(7-9)\times(7-3)$
   d) $3\times(6+7)=(3\times6)+(3\times7)$

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

7. Which of the following are true?

a) $\frac{2}{7} \times \frac{15}{4} = \frac{15}{4} \times \frac{2}{7}$

b) $\frac{1}{11} \div \frac{15}{4} = \frac{15}{4} \div \frac{1}{11}$

c) $\frac{2}{7} + \frac{44}{5} = \frac{44}{5} + \frac{2}{7}$

d) $\frac{1}{11} - \frac{44}{5} = \frac{44}{5} - \frac{1}{11}$

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

8. Which of the following are true?

a) $\frac{7}{6} \times (\frac{23}{11} \times \frac{1}{19}) = (\frac{7}{6} \times \frac{23}{11}) \times \frac{1}{19}$

b) $\frac{1}{5} - (\frac{41}{13} - \frac{7}{11}) = (\frac{1}{5} - \frac{41}{13}) - \frac{7}{11}$

c) $\frac{7}{6} + (\frac{41}{13} + \frac{7}{8}) = (\frac{7}{6} + \frac{41}{13}) + \frac{7}{8}$

d) $\frac{1}{5} \div (\frac{23}{11} \div \frac{5}{8}) = (\frac{1}{5} \div \frac{23}{11}) \div \frac{5}{8}$

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

9. Which of the following are true?

a) $\frac{1}{8} \div (\frac{29}{2} + \frac{16}{5}) = (\frac{1}{8} \div \frac{29}{2}) + (\frac{1}{8} \div \frac{16}{5})$

b) $\frac{11}{5} \times (\frac{43}{6} - \frac{9}{10}) = (\frac{11}{5} \times \frac{43}{6}) - (\frac{11}{5} \times \frac{9}{10})$

c) $\frac{11}{5} \times (\frac{29}{2} + \frac{13}{6}) = (\frac{11}{5} \times \frac{29}{2}) + (\frac{11}{5} \times \frac{13}{6})$

d) $\frac{1}{8} - (\frac{43}{6} \times \frac{9}{17}) = (\frac{1}{8} - \frac{43}{6}) \times (\frac{1}{8} - \frac{9}{17})$

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

10. Which of the following is true?

a) $14.8600 \times 11.4000 = 11.4000 \times 14.8600$

b) $11.4000 + 6.4500 = 6.4500 + 11.4000$

c) $6.4500 - 2.2300 = 2.2300 - 6.4500$

d) $2.2300 \div 14.8600 = 14.8600 \div 2.2300$

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

11. Which of the following is true?

a) $2.9000+(17.7500+7.4800)=(2.9000+17.7500)+7.4800$
b) $17.7500-(7.4800-4.1800)=(17.7500-7.4800)-4.1800$
c) $4.1800\times(2.9000\times17.7500)=(4.1800\times2.9000)\times17.7500$
d) $7.4800\div(4.1800\div2.9000)=(7.4800\div4.1800)\div2.9000$

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

12. Which of the following is true?

a) $15.9800\div(19.6800+2.8800)=(15.9800\div19.6800)+(15.9800\div2.8800)$
b) $19.6800\times(2.8800+15.9600)=(19.6800\times2.8800)+(19.6800\times15.9600)$
c) $2.8800\times(15.9600-15.9800)=(2.8800\times15.9600)-(2.8800\times15.9800)$
d) $15.9600-(15.9800\times19.6800)=(15.9600-15.9800)\times(15.9600-19.6800)$

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

13. Which of the following are true?

a) whole numbers are closed under multiplication
b) whole numbers are closed under division
c) whole numbers are closed under subtraction
d) whole numbers are closed under addition

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

14. Which of the following are true?

a) integers are closed under division
b) integers are closed under multiplication
c) integers are closed under addition
d) integers are closed under subtraction

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

15. Which of the following are true?

a) rational numbers are closed under division
b) rational numbers are closed under subtraction
c) rational numbers are closed under multiplication
d) rational numbers are closed under addition

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

16. Which of the following are true?

a) real numbers are closed under addition
b) real numbers are closed under division
c) real numbers are closed under subtraction
d) real numbers are closed under multiplication

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

17. The reciprocal of $\frac{6}{5}$ is

(i) $(-1\frac{1}{6})$ (ii) $1\frac{5}{6}$ (iii) $(\frac{-1}{6})$ (iv) $2\frac{5}{6}$ (v) $\frac{5}{6}$

18. The additive inverse of $\frac{4}{5}$ is

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

19. The multiplicative inverse of $(\frac{-5}{9})$ is

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

20. Which of the following are true?

a) $13-14=14-13$
b) $6+13=13+6$
c) $4\times6=6\times4$
d) $14\div4=4\div14$

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

21. Which of the following are true?

a) $10+(19+18)=(10+19)+18$
b) $15\times(10\times19)=(15\times10)\times19$
c) $19-(18-15)=(19-18)-15$
d) $18\div(15\div10)=(18\div15)\div10$

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

22. Which of the following are true?

a) $9\times(14-13)=(9\times14)-(9\times13)$
b) $13\div(2+9)=(13\div2)+(13\div9)$
c) $14-(13\times2)=(14-13)\times(14-2)$
d) $2\times(9+14)=(2\times9)+(2\times14)$

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

23. Which of the following are true?

a) $\frac{15}{8}\times\frac{31}{8}=\frac{31}{8}\times\frac{15}{8}$

b) $\frac{11}{8}-\frac{41}{17}=\frac{41}{17}-\frac{11}{8}$

c) $\frac{15}{8}+\frac{41}{17}=\frac{41}{17}+\frac{15}{8}$

d) $\frac{11}{8}\div\frac{31}{8}=\frac{31}{8}\div\frac{11}{8}$

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

24. Which of the following are true?

a) $\frac{1}{9} \div (\frac{21}{5} \div \frac{10}{17}) = (\frac{1}{9} \div \frac{21}{5}) \div \frac{10}{17}$

b) $\frac{19}{5} + (\frac{62}{7} + \frac{17}{15}) = (\frac{19}{5} + \frac{62}{7}) + \frac{17}{15}$

c) $\frac{19}{5} \times (\frac{21}{5} \times \frac{5}{2}) = (\frac{19}{5} \times \frac{21}{5}) \times \frac{5}{2}$

d) $\frac{1}{9} - (\frac{62}{7} - \frac{1}{13}) = (\frac{1}{9} - \frac{62}{7}) - \frac{1}{13}$

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

25. Which of the following are true?

a) $\frac{7}{17} \times (\frac{31}{14} - \frac{8}{9}) = (\frac{7}{17} \times \frac{31}{14}) - (\frac{7}{17} \times \frac{8}{9})$

b) $\frac{5}{4} \div (\frac{26}{3} + \frac{9}{11}) = (\frac{5}{4} \div \frac{26}{3}) + (\frac{5}{4} \div \frac{9}{11})$

c) $\frac{5}{4} - (\frac{31}{14} \times \frac{1}{6}) = (\frac{5}{4} - \frac{31}{14}) \times (\frac{5}{4} - \frac{1}{6})$

d) $\frac{7}{17} \times (\frac{26}{3} + \frac{10}{11}) = (\frac{7}{17} \times \frac{26}{3}) + (\frac{7}{17} \times \frac{10}{11})$

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

26. Which of the following is true?

a) $19.0600 \div 3.0000 = 3.0000 \div 19.0600$

b) $11.9000 + 18.3000 = 18.3000 + 11.9000$

c) $3.0000 \times 11.9000 = 11.9000 \times 3.0000$

d) $18.3000 - 19.0600 = 19.0600 - 18.3000$

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

27. Which of the following is true?

a) $15.8300 \times (4.4200 \times 6.1300) = (15.8300 \times 4.4200) \times 6.1300$

b) $4.4200 + (6.1300 + 9.9500) = (4.4200 + 6.1300) + 9.9500$

c) $6.1300 - (9.9500 - 15.8300) = (6.1300 - 9.9500) - 15.8300$

d) $9.9500 \div (15.8300 \div 4.4200) = (9.9500 \div 15.8300) \div 4.4200$

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

28. Which of the following is true?

a) $6.0600 \div (12.4000 + 6.2600) = (6.0600 \div 12.4000) + (6.0600 \div 6.2600)$

b) $6.2600 \times (19.6000 - 6.0600) = (6.2600 \times 19.6000) - (6.2600 \times 6.0600)$

c) $19.6000 - (6.0600 \times 12.4000) = (19.6000 - 6.0600) \times (19.6000 - 12.4000)$

d) $12.4000 \times (6.2600 + 19.6000) = (12.4000 \times 6.2600) + (12.4000 \times 19.6000)$

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

Assignment Key

1) (v)	2) (v)	3) (iii)	4) (i)	5) (v)	6) (i)
7) (iii)	8) (v)	9) (iii)	10) (ii)	11) (iii)	12) (i)
13) (iii)	14) (ii)	15) (i)	16) (v)	17) (v)	18) (v)
19) (iv)	20) (iv)	21) (ii)	22) (i)	23) (iii)	24) (v)
25) (ii)	26) (iii)	27) (iii)	28) (i)		