EduSahara™ Assignment

Name : Properties of Rational Numbers

Chapter : Rational Numbers

Grade : SSC Grade VIII

1. The reciprocal of $\frac{3}{8}$ is

   (i) $\frac{2}{3}$ (ii) $1\frac{2}{3}$ (iii) $3\frac{2}{3}$ (iv) $4\frac{2}{3}$ (v) $\frac{8}{3}$

2. The additive inverse of $\frac{7}{2}$ is

   (i) $(-4\frac{1}{2})$ (ii) $\frac{2}{7}$ (iii) 0 (iv) $(\frac{-7}{2})$ (v) $\frac{2}{-7}$

3. The multiplicative inverse of $(\frac{-7}{6})$ is

   (i) $(-2\frac{6}{7})$ (ii) $\frac{1}{7}$ (iii) $(\frac{-6}{7})$ (iv) $1\frac{1}{7}$ (v) $(-1\frac{6}{7})$

4. Which of the following are true?

   a) $8+9=9+8$
   b) $7\times8=8\times7$
   c) $9-16=16-9$
   d) $16\div7=7\div16$

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

5. Which of the following are true?

   a) $5\times(19\times7)=(5\times19)\times7$
   b) $11\div(5\div19)=(11\div5)\div19$
   c) $7-(11-5)=(7-11)-5$
   d) $19+(7+11)=(19+7)+11$

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

6. Which of the following are true?

   a) $12\times(19+13)=(12\times19)+(12\times13)$
   b) $18\div(12+19)=(18\div12)+(18\div19)$
   c) $13-(18\times12)=(13-18)\times(13-12)$
   d) $19\times(13-18)=(19\times13)-(19\times18)$

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

7. Which of the following are true?

a) $\frac{1}{10} \times \frac{13}{4} = \frac{13}{4} \times \frac{1}{10}$

b) $\frac{20}{7} - \frac{9}{2} = \frac{9}{2} - \frac{20}{7}$

c) $\frac{20}{7} \div \frac{13}{4} = \frac{13}{4} \div \frac{20}{7}$

d) $\frac{1}{10} + \frac{9}{2} = \frac{9}{2} + \frac{1}{10}$

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

8. Which of the following are true?

a) $\frac{9}{14} \div (\frac{47}{20} \div \frac{7}{10}) = (\frac{9}{14} \div \frac{47}{20}) \div \frac{7}{10}$

b) $\frac{2}{9} \times (\frac{47}{20} \times \frac{2}{7}) = (\frac{2}{9} \times \frac{47}{20}) \times \frac{2}{7}$

c) $\frac{9}{14} - (\frac{29}{3} - \frac{19}{12}) = (\frac{9}{14} - \frac{29}{3}) - \frac{19}{12}$

d) $\frac{2}{9} + (\frac{29}{3} + \frac{17}{10}) = (\frac{2}{9} + \frac{29}{3}) + \frac{17}{10}$

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

9. Which of the following are true?

a) $\frac{11}{6} \div (\frac{99}{14} + \frac{19}{17}) = (\frac{11}{6} \div \frac{99}{14}) + (\frac{11}{6} \div \frac{19}{17})$

b) $\frac{11}{6} - (\frac{96}{11} \times \frac{20}{9}) = (\frac{11}{6} - \frac{96}{11}) \times (\frac{11}{6} - \frac{20}{9})$

c) $\frac{5}{9} \times (\frac{99}{14} + \frac{14}{3}) = (\frac{5}{9} \times \frac{99}{14}) + (\frac{5}{9} \times \frac{14}{3})$

d) $\frac{5}{9} \times (\frac{96}{11} - \frac{15}{4}) = (\frac{5}{9} \times \frac{96}{11}) - (\frac{5}{9} \times \frac{15}{4})$

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

10. Which of the following is true?

a) $14.6500 - 3.5200 = 3.5200 - 14.6500$

b) $3.5200 \div 18.4900 = 18.4900 \div 3.5200$

c) $20.7300 + 14.6500 = 14.6500 + 20.7300$

d) $18.4900 \times 20.7300 = 20.7300 \times 18.4900$

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

11. Which of the following is true?

a) $8.5400-(19.8600-13.5300)=(8.5400-19.8600)-13.5300$
b) $2.8900+(8.5400+19.8600)=(2.8900+8.5400)+19.8600$
c) $19.8600\div(13.5300\div2.8900)=(19.8600\div13.5300)\div2.8900$
d) $13.5300\times(2.8900\times8.5400)=(13.5300\times2.8900)\times8.5400$

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

12. Which of the following is true?

a) $20.3900\times(13.6700+6.3700)=(20.3900\times13.6700)+(20.3900\times6.3700)$
b) $13.6700\times(6.3700-15.9000)=(13.6700\times6.3700)-(13.6700\times15.9000)$
c) $6.3700-(15.9000\times20.3900)=(6.3700-15.9000)\times(6.3700-20.3900)$
d) $15.9000\div(20.3900+13.6700)=(15.9000\div20.3900)+(15.9000\div13.6700)$

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

13. Which of the following are true?

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

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

14. Which of the following are true?

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

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

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 addition
d) rational numbers are closed under multiplication

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

16. Which of the following are true?

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

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

17. The reciprocal of $\frac{3}{2}$ is

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

18. The additive inverse of $\frac{3}{4}$ is

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

19. The multiplicative inverse of $(\frac{-5}{7})$ is

(i) $\frac{3}{5}$ (ii) $(\frac{-7}{5})$ (iii) $(-2\frac{2}{5})$ (iv) $(\frac{-2}{5})$ (v) $(-3\frac{2}{5})$

20. Which of the following are true?

a) $15\times14=14\times15$
b) $14+10=10+14$
c) $10-12=12-10$
d) $12\div15=15\div12$

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

21. Which of the following are true?

a) $14+(2+3)=(14+2)+3$
b) $3\div(10\div14)=(3\div10)\div14$
c) $2-(3-10)=(2-3)-10$
d) $10\times(14\times2)=(10\times14)\times2$

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

22. Which of the following are true?

a) $17\times(14-16)=(17\times14)-(17\times16)$
b) $16\div(19+17)=(16\div19)+(16\div17)$
c) $14-(16\times19)=(14-16)\times(14-19)$
d) $19\times(17+14)=(19\times17)+(19\times14)$

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

23. Which of the following are true?

a) $\frac{8}{17}-\frac{36}{11}=\frac{36}{11}-\frac{8}{17}$

b) $\frac{1}{8}\times\frac{111}{14}=\frac{111}{14}\times\frac{1}{8}$

c) $\frac{1}{8}+\frac{36}{11}=\frac{36}{11}+\frac{1}{8}$

d) $\frac{8}{17}\div\frac{111}{14}=\frac{111}{14}\div\frac{8}{17}$

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

24. Which of the following are true?

a) $\frac{9}{20}\times(\frac{95}{18}\times\frac{11}{16})=(\frac{9}{20}\times\frac{95}{18})\times\frac{11}{16}$

b) $\frac{9}{20}+(\frac{33}{14}+\frac{20}{9})=(\frac{9}{20}+\frac{33}{14})+\frac{20}{9}$

c) $\frac{15}{16}-(\frac{33}{14}-\frac{10}{7})=(\frac{15}{16}-\frac{33}{14})-\frac{10}{7}$

d) $\frac{15}{16}\div(\frac{95}{18}\div\frac{11}{9})=(\frac{15}{16}\div\frac{95}{18})\div\frac{11}{9}$

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

25. Which of the following are true?

a) $\frac{5}{11}\times(\frac{43}{17}-\frac{17}{13})=(\frac{5}{11}\times\frac{43}{17})-(\frac{5}{11}\times\frac{17}{13})$

b) $\frac{7}{4}-(\frac{43}{17}\times\frac{1}{17})=(\frac{7}{4}-\frac{43}{17})\times(\frac{7}{4}-\frac{1}{17})$

c) $\frac{5}{11}\times(\frac{25}{2}+\frac{13}{12})=(\frac{5}{11}\times\frac{25}{2})+(\frac{5}{11}\times\frac{13}{12})$

d) $\frac{7}{4}\div(\frac{25}{2}+\frac{17}{14})=(\frac{7}{4}\div\frac{25}{2})+(\frac{7}{4}\div\frac{17}{14})$

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

26. Which of the following is true?

a) $3.3000\times15.5900=15.5900\times3.3000$

b) $8.4300-19.7800=19.7800-8.4300$

c) $15.5900+8.4300=8.4300+15.5900$

d) $19.7800\div3.3000=3.3000\div19.7800$

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

27. Which of the following is true?

a) $7.1600\times(8.9400\times18.8300)=(7.1600\times8.9400)\times18.8300$

b) $18.6100\div(7.1600\div8.9400)=(18.6100\div7.1600)\div8.9400$

c) $8.9400+(18.8300+18.6100)=(8.9400+18.8300)+18.6100$

d) $18.8300-(18.6100-7.1600)=(18.8300-18.6100)-7.1600$

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

28. Which of the following is true?

a) $18.1300\times(14.4300+15.9200)=(18.1300\times14.4300)+(18.1300\times15.9200)$

b) $15.9200-(15.9800\times18.1300)=(15.9200-15.9800)\times(15.9200-18.1300)$

c) $14.4300\times(15.9200-15.9800)=(14.4300\times15.9200)-(14.4300\times15.9800)$

d) $15.9800\div(18.1300+14.4300)=(15.9800\div18.1300)+(15.9800\div14.4300)$

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

Assignment Key

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