

EduSahara™ Learning Center Assignment

Grade : Class VIII, CBSE
Chapter : Rational Numbers
Name : Properties of Rational Numbers
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1. The reciprocal of $\frac{7}{8}$ is

- (i) $\frac{1}{7}$ (ii) $3\frac{1}{7}$ (iii) $2\frac{1}{7}$ (iv) $\frac{8}{7}$ (v) $(-\frac{6}{7})$

2. The additive inverse of $(-\frac{1}{8})$ is

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

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

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

4. Which of the following are true?

- a) $\frac{11}{9} \div \frac{126}{19} = \frac{126}{19} \div \frac{11}{9}$
 b) $\frac{7}{8} + \frac{103}{14} = \frac{103}{14} + \frac{7}{8}$
 c) $\frac{11}{9} - \frac{103}{14} = \frac{103}{14} - \frac{11}{9}$
 d) $\frac{7}{8} \times \frac{126}{19} = \frac{126}{19} \times \frac{7}{8}$

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

5. Which of the following are true?

- a) $\frac{19}{3} \div (\frac{86}{19} \div \frac{3}{4}) = (\frac{19}{3} \div \frac{86}{19}) \div \frac{3}{4}$
 b) $\frac{7}{5} + (\frac{36}{11} + \frac{17}{15}) = (\frac{7}{5} + \frac{36}{11}) + \frac{17}{15}$
 c) $\frac{19}{3} - (\frac{36}{11} - \frac{9}{16}) = (\frac{19}{3} - \frac{36}{11}) - \frac{9}{16}$
 d) $\frac{7}{5} \times (\frac{86}{19} \times \frac{5}{11}) = (\frac{7}{5} \times \frac{86}{19}) \times \frac{5}{11}$

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

6. Which of the following are true?

- a) $\frac{1}{16} \times (\frac{21}{5} + \frac{17}{12}) = (\frac{1}{16} \times \frac{21}{5}) + (\frac{1}{16} \times \frac{17}{12})$
 b) $\frac{1}{16} \times (\frac{28}{13} - \frac{10}{11}) = (\frac{1}{16} \times \frac{28}{13}) - (\frac{1}{16} \times \frac{10}{11})$
 c) $\frac{11}{4} \div (\frac{21}{5} + \frac{5}{7}) = (\frac{11}{4} \div \frac{21}{5}) + (\frac{11}{4} \div \frac{5}{7})$
 d) $\frac{11}{4} - (\frac{28}{13} \times \frac{5}{3}) = (\frac{11}{4} - \frac{28}{13}) \times (\frac{11}{4} - \frac{5}{3})$
 (i) {c,d,a} (ii) {a,b} (iii) {c,a} (iv) {c,b,a} (v) {d,b}
-

7. Which of the following are true?

- a) $18 - 11 = 11 - 18$
 b) $11 \div 15 = 15 \div 11$
 c) $6 + 18 = 18 + 6$
 d) $15 \times 6 = 6 \times 15$
 (i) {a,c} (ii) {c,d} (iii) {a,d,c} (iv) {a,b,c} (v) {b,d}
-

8. Which of the following are true?

- a) $4 - (2 - 13) = (4 - 2) - 13$
 b) $13 \times (19 \times 4) = (13 \times 19) \times 4$
 c) $2 \div (13 \div 19) = (2 \div 13) \div 19$
 d) $19 + (4 + 2) = (19 + 4) + 2$
 (i) {a,c,b} (ii) {c,d} (iii) {a,b} (iv) {b,d} (v) {a,d,b}
-

9. Which of the following are true?

- a) $14 \div (4 + 5) = (14 \div 4) + (14 \div 5)$
 b) $4 \times (5 + 8) = (4 \times 5) + (4 \times 8)$
 c) $5 \times (8 - 14) = (5 \times 8) - (5 \times 14)$
 d) $8 - (14 \times 4) = (8 - 14) \times (8 - 4)$
 (i) {b,c} (ii) {a,b} (iii) {a,c,b} (iv) {a,d,b} (v) {d,c}
-

10. Which of the following is true?

- a) $19.9600 \div 3.2200 = 3.2200 \div 19.9600$
 b) $3.2200 \times 16.9400 = 16.9400 \times 3.2200$
 c) $16.9400 + 9.3900 = 9.3900 + 16.9400$
 d) $9.3900 - 19.9600 = 19.9600 - 9.3900$
 (i) {a,b} (ii) {a,c,b} (iii) {d,c} (iv) {b,c} (v) {a,d,b}
-

11. Which of the following is true?

- a) $7.0500 \div (9.9800 \div 3.8800) = (7.0500 \div 9.9800) \div 3.8800$
 - b) $3.8800 + (10.9000 + 7.0500) = (3.8800 + 10.9000) + 7.0500$
 - c) $9.9800 \times (3.8800 \times 10.9000) = (9.9800 \times 3.8800) \times 10.9000$
 - d) $10.9000 - (7.0500 - 9.9800) = (10.9000 - 7.0500) - 9.9800$
- (i) {a,d,b} (ii) {d,c} (iii) {a,c,b} (iv) {b,c} (v) {a,b}
-

12. Which of the following is true?

- a) $7.7800 \times (4.6700 - 3.3900) = (7.7800 \times 4.6700) - (7.7800 \times 3.3900)$
 - b) $4.6700 - (3.3900 \times 3.2500) = (4.6700 - 3.3900) \times (4.6700 - 3.2500)$
 - c) $3.2500 \times (7.7800 + 4.6700) = (3.2500 \times 7.7800) + (3.2500 \times 4.6700)$
 - d) $3.3900 \div (3.2500 + 7.7800) = (3.3900 \div 3.2500) + (3.3900 \div 7.7800)$
- (i) {b,d,a} (ii) {d,c} (iii) {a,c} (iv) {b,c,a} (v) {b,a}
-

13. Which of the following are true?

- a) Multiplication is closed under whole numbers
 - b) Addition is closed under whole numbers
 - c) Division is closed under whole numbers
 - d) Subtraction is closed under whole numbers
- (i) {c,d,a} (ii) {d,b} (iii) {a,b} (iv) {c,a} (v) {c,b,a}
-

14. Which of the following are true?

- a) Multiplication is closed under integers
 - b) Addition is closed under integers
 - c) Subtraction is closed under integers
 - d) Division is closed under integers
- (i) {a,b,c} (ii) {d,c} (iii) {d,b} (iv) {d,a,b} (v) {d,a}
-

15. Which of the following are true?

- a) Multiplication is closed under rational numbers
 - b) Subtraction is closed under rational numbers
 - c) Addition is closed under rational numbers
 - d) Division is closed under rational numbers
- (i) {d,a,b} (ii) {d,a} (iii) {a,b,c} (iv) {d,b} (v) {d,c}
-

16. Which of the following are true?

- a) Multiplication is closed under real numbers
 b) Division is closed under real numbers
 c) Addition is closed under real numbers
 d) Subtraction is closed under real numbers
- (i) {b,a} (ii) {b,c} (iii) {b,a,c} (iv) {b,d} (v) {a,c,d}
-

17. The additive inverse of $(\frac{-4}{5})$ is

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

18. The multiplicative inverse of $\frac{8}{5}$ is

- (i) $\frac{5}{8}$ (ii) $1\frac{5}{8}$ (iii) $(-1\frac{3}{8})$ (iv) $2\frac{5}{8}$ (v) $(\frac{-3}{8})$
-

19. Which of the following are true?

- a) $\frac{10}{7} - \frac{112}{13} = \frac{112}{13} - \frac{10}{7}$
 b) $\frac{10}{7} \div \frac{28}{13} = \frac{28}{13} \div \frac{10}{7}$
 c) $\frac{5}{19} + \frac{112}{13} = \frac{112}{13} + \frac{5}{19}$
 d) $\frac{5}{19} \times \frac{28}{13} = \frac{28}{13} \times \frac{5}{19}$
- (i) {c,d} (ii) {a,b,c} (iii) {a,d,c} (iv) {a,c} (v) {b,d}
-

20. Which of the following are true?

- a) $\frac{9}{20} + (\frac{37}{16} + \frac{19}{2}) = (\frac{9}{20} + \frac{37}{16}) + \frac{19}{2}$
 b) $\frac{9}{20} \times (\frac{123}{14} \times \frac{1}{19}) = (\frac{9}{20} \times \frac{123}{14}) \times \frac{1}{19}$
 c) $\frac{1}{10} - (\frac{37}{16} - \frac{15}{16}) = (\frac{1}{10} - \frac{37}{16}) - \frac{15}{16}$
 d) $\frac{1}{10} \div (\frac{123}{14} \div \frac{14}{11}) = (\frac{1}{10} \div \frac{123}{14}) \div \frac{14}{11}$
- (i) {a,b} (ii) {c,a} (iii) {c,d,a} (iv) {c,b,a} (v) {d,b}
-

21. Which of the following are true?

- a) $\frac{14}{13} - (\frac{83}{7} \times \frac{3}{4}) = (\frac{14}{13} - \frac{83}{7}) \times (\frac{14}{13} - \frac{3}{4})$
 b) $\frac{14}{13} \div (\frac{14}{11} + \frac{1}{17}) = (\frac{14}{13} \div \frac{14}{11}) + (\frac{14}{13} \div \frac{1}{17})$
 c) $\frac{14}{11} \times (\frac{83}{7} - \frac{9}{2}) = (\frac{14}{11} \times \frac{83}{7}) - (\frac{14}{11} \times \frac{9}{2})$
 d) $\frac{14}{11} \times (\frac{14}{11} + \frac{11}{9}) = (\frac{14}{11} \times \frac{14}{11}) + (\frac{14}{11} \times \frac{11}{9})$

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

22. Which of the following are true?

a) $8 \times 17 = 17 \times 8$

b) $17 + 13 = 13 + 17$

c) $13 - 10 = 10 - 13$

d) $10 \div 8 = 8 \div 10$

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

23. Which of the following are true?

a) $18 + (12 + 13) = (18 + 12) + 13$

b) $12 - (13 - 14) = (12 - 13) - 14$

c) $13 \div (14 \div 18) = (13 \div 14) \div 18$

d) $14 \times (18 \times 12) = (14 \times 18) \times 12$

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

24. Which of the following are true?

a) $16 \times (6 - 18) = (16 \times 6) - (16 \times 18)$

b) $6 - (18 \times 15) = (6 - 18) \times (6 - 15)$

c) $15 \times (16 + 6) = (15 \times 16) + (15 \times 6)$

d) $18 \div (15 + 16) = (18 \div 15) + (18 \div 16)$

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

25. Which of the following is true?

a) $5.7300 \div 14.1500 = 14.1500 \div 5.7300$

b) $14.0800 + 2.4600 = 2.4600 + 14.0800$

c) $14.1500 \times 14.0800 = 14.0800 \times 14.1500$

d) $2.4600 - 5.7300 = 5.7300 - 2.4600$

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

26. Which of the following is true?

a) $18.5600 + (16.5200 + 12.2400) = (18.5600 + 16.5200) + 12.2400$

b) $12.2400 \div (5.1500 \div 18.5600) = (12.2400 \div 5.1500) \div 18.5600$

c) $16.5200 - (12.2400 - 5.1500) = (16.5200 - 12.2400) - 5.1500$

$$d) 5.1500 \times (18.5600 \times 16.5200) = (5.1500 \times 18.5600) \times 16.5200$$

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

27. Which of the following is true?

a) $18.5800 \times (11.6600 + 20.6700) = (18.5800 \times 11.6600) + (18.5800 \times 20.6700)$

b) $20.6700 - (5.7700 \times 18.5800) = (20.6700 - 5.7700) \times (20.6700 - 18.5800)$

c) $11.6600 \times (20.6700 - 5.7700) = (11.6600 \times 20.6700) - (11.6600 \times 5.7700)$

d) $5.7700 \div (18.5800 + 11.6600) = (5.7700 \div 18.5800) + (5.7700 \div 11.6600)$

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

Assignment Key

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