

EduSahara™ Learning Center Assignment**Grade : Class VIII, SSC****Chapter : Rational Numbers****Name : Properties of Rational Numbers****Licensed To : Teachers and Students for non-commercial use**

1. The reciprocal of $\frac{1}{4}$ is

- (i) 3 (ii) 2 (iii) 5 (iv) $\frac{4}{1}$ (v) 6
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2. The additive inverse of $\frac{5}{2}$ is

- (i) $(-\frac{5}{2})$ (ii) $\frac{2}{-5}$ (iii) $\frac{2}{5}$ (iv) 0 (v) $(-3\frac{1}{2})$
-

3. The multiplicative inverse of $\frac{5}{2}$ is

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

4. Which of the following are true?

- a) $14 \div 4 = 4 \div 14$
b) $4 \times 3 = 3 \times 4$
c) $3 + 15 = 15 + 3$
d) $15 - 14 = 14 - 15$
(i) {b,c} (ii) {a,d,b} (iii) {a,c,b} (iv) {d,c} (v) {a,b}
-

5. Which of the following are true?

- a) $19 \div (16 \div 6) = (19 \div 16) \div 6$
b) $16 \times (6 \times 10) = (16 \times 6) \times 10$
c) $10 - (19 - 16) = (10 - 19) - 16$
d) $6 + (10 + 19) = (6 + 10) + 19$
(i) {a,b} (ii) {c,d} (iii) {b,d} (iv) {a,c,b} (v) {a,d,b}
-

6. Which of the following are true?

- a) $17 \times (19 - 7) = (17 \times 19) - (17 \times 7)$
b) $7 \div (3 + 17) = (7 \div 3) + (7 \div 17)$

c) $3 \times (17 + 19) = (3 \times 17) + (3 \times 19)$

d) $19 - (7 \times 3) = (19 - 7) \times (19 - 3)$

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

7. Which of the following are true?

a) $\frac{1}{3} \times \frac{17}{5} = \frac{17}{5} \times \frac{1}{3}$

b) $\frac{15}{4} - \frac{170}{19} = \frac{170}{19} - \frac{15}{4}$

c) $\frac{15}{4} \div \frac{17}{5} = \frac{17}{5} \div \frac{15}{4}$

d) $\frac{1}{3} + \frac{170}{19} = \frac{170}{19} + \frac{1}{3}$

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

8. Which of the following are true?

a) $\frac{19}{5} - (\frac{71}{8} - \frac{3}{14}) = (\frac{19}{5} - \frac{71}{8}) - \frac{3}{14}$

b) $\frac{1}{8} \times (\frac{106}{15} \times \frac{6}{7}) = (\frac{1}{8} \times \frac{106}{15}) \times \frac{6}{7}$

c) $\frac{19}{5} \div (\frac{106}{15} \div \frac{9}{11}) = (\frac{19}{5} \div \frac{106}{15}) \div \frac{9}{11}$

d) $\frac{1}{8} + (\frac{71}{8} + \frac{3}{16}) = (\frac{1}{8} + \frac{71}{8}) + \frac{3}{16}$

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

9. Which of the following are true?

a) $\frac{11}{6} \div (\frac{137}{19} + \frac{19}{7}) = (\frac{11}{6} \div \frac{137}{19}) + (\frac{11}{6} \div \frac{19}{7})$

b) $\frac{11}{6} - (\frac{13}{2} \times \frac{5}{8}) = (\frac{11}{6} - \frac{13}{2}) \times (\frac{11}{6} - \frac{5}{8})$

c) $\frac{8}{3} \times (\frac{137}{19} + \frac{6}{7}) = (\frac{8}{3} \times \frac{137}{19}) + (\frac{8}{3} \times \frac{6}{7})$

d) $\frac{8}{3} \times (\frac{13}{2} - \frac{13}{14}) = (\frac{8}{3} \times \frac{13}{2}) - (\frac{8}{3} \times \frac{13}{14})$

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

10. Which of the following is true?

a) $13.3700 - 5.1600 = 5.1600 - 13.3700$

b) $5.1600 \div 11.5200 = 11.5200 \div 5.1600$

c) $11.5200 \times 17.3500 = 17.3500 \times 11.5200$

d) $17.3500 + 13.3700 = 13.3700 + 17.3500$

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

11. Which of the following is true?

- a) $14.3700 \div (13.3200 \div 12.7000) = (14.3700 \div 13.3200) \div 12.7000$
 - b) $13.3200 \times (12.7000 \times 3.0200) = (13.3200 \times 12.7000) \times 3.0200$
 - c) $3.0200 - (14.3700 - 13.3200) = (3.0200 - 14.3700) - 13.3200$
 - d) $12.7000 + (3.0200 + 14.3700) = (12.7000 + 3.0200) + 14.3700$
- (i) {c,d} (ii) {a,b} (iii) {a,c,b} (iv) {b,d} (v) {a,d,b}
-

12. Which of the following is true?

- a) $16.4100 - (8.0400 \times 7.2000) = (16.4100 - 8.0400) \times (16.4100 - 7.2000)$
 - b) $5.0100 \times (16.4100 - 8.0400) = (5.0100 \times 16.4100) - (5.0100 \times 8.0400)$
 - c) $8.0400 \div (7.2000 + 5.0100) = (8.0400 \div 7.2000) + (8.0400 \div 5.0100)$
 - d) $7.2000 \times (5.0100 + 16.4100) = (7.2000 \times 5.0100) + (7.2000 \times 16.4100)$
- (i) {a,c,b} (ii) {c,d} (iii) {a,b} (iv) {a,d,b} (v) {b,d}
-

13. Which of the following are true?

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

14. Which of the following are true?

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

15. Which of the following are true?

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

16. Which of the following are true?

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

17. The reciprocal of $\frac{1}{2}$ is

- (i) 4 (ii) 3 (iii) 0 (iv) $\frac{2}{1}$ (v) 1
-

18. The additive inverse of $(\frac{-5}{7})$ is

- (i) 0 (ii) $\frac{7}{-5}$ (iii) $\frac{5}{7}$ (iv) $(\frac{-2}{7})$ (v) $\frac{7}{5}$
-

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

- (i) $1\frac{2}{7}$ (ii) $(-1\frac{5}{7})$ (iii) $(\frac{-5}{7})$ (iv) $(-2\frac{5}{7})$ (v) $\frac{2}{7}$
-

20. Which of the following are true?

- a) $2 + 16 = 16 + 2$
 - b) $12 \div 9 = 9 \div 12$
 - c) $16 - 12 = 12 - 16$
 - d) $9 \times 2 = 2 \times 9$
- (i) {b,a} (ii) {b,c,a} (iii) {c,d} (iv) {a,d} (v) {b,d,a}
-

21. Which of the following are true?

- a) $9 \times (19 \times 7) = (9 \times 19) \times 7$
 - b) $3 \div (9 \div 19) = (3 \div 9) \div 19$
 - c) $7 - (3 - 9) = (7 - 3) - 9$
 - d) $19 + (7 + 3) = (19 + 7) + 3$
- (i) {b,c,a} (ii) {b,a} (iii) {b,d,a} (iv) {a,d} (v) {c,d}
-

22. Which of the following are true?

- a) $5 - (10 \times 17) = (5 - 10) \times (5 - 17)$
- b) $17 \times (14 + 5) = (17 \times 14) + (17 \times 5)$
- c) $14 \times (5 - 10) = (14 \times 5) - (14 \times 10)$

$$d) 10 \div (17 + 14) = (10 \div 17) + (10 \div 14)$$

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

23. Which of the following are true?

$$a) \frac{16}{11} + \frac{15}{2} = \frac{15}{2} + \frac{16}{11}$$

$$b) \frac{18}{5} - \frac{15}{2} = \frac{15}{2} - \frac{18}{5}$$

$$c) \frac{16}{11} \times \frac{45}{14} = \frac{45}{14} \times \frac{16}{11}$$

$$d) \frac{18}{5} \div \frac{14}{45} = \frac{45}{14} \div \frac{18}{5}$$

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

24. Which of the following are true?

$$a) \frac{10}{13} - \left(\frac{83}{11} - \frac{2}{15} \right) = \left(\frac{10}{13} - \frac{83}{11} \right) - \frac{2}{15}$$

$$b) \frac{13}{18} \times \left(\frac{163}{18} \times \frac{9}{8} \right) = \left(\frac{13}{18} \times \frac{163}{18} \right) \times \frac{9}{8}$$

$$c) \frac{13}{18} + \left(\frac{83}{11} + \frac{11}{20} \right) = \left(\frac{13}{18} + \frac{83}{11} \right) + \frac{11}{20}$$

$$d) \frac{10}{13} \div \left(\frac{163}{18} \div \frac{13}{4} \right) = \left(\frac{10}{13} \div \frac{163}{18} \right) \div \frac{13}{4}$$

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

25. Which of the following are true?

$$a) \frac{1}{11} \times \left(\frac{21}{11} + \frac{20}{3} \right) = \left(\frac{1}{11} \times \frac{21}{11} \right) + \left(\frac{1}{11} \times \frac{20}{3} \right)$$

$$b) \frac{4}{5} \div \left(\frac{21}{11} + \frac{11}{5} \right) = \left(\frac{4}{5} \div \frac{21}{11} \right) + \left(\frac{4}{5} \div \frac{11}{5} \right)$$

$$c) \frac{4}{5} - \left(\frac{57}{11} \times \frac{5}{8} \right) = \left(\frac{4}{5} - \frac{57}{11} \right) \times \left(\frac{4}{5} - \frac{5}{8} \right)$$

$$d) \frac{1}{11} \times \left(\frac{57}{11} - \frac{7}{6} \right) = \left(\frac{1}{11} \times \frac{57}{11} \right) - \left(\frac{1}{11} \times \frac{7}{6} \right)$$

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

26. Which of the following is true?

$$a) 18.4700 \times 14.8600 = 14.8600 \times 18.4700$$

$$b) 18.0200 \div 18.4700 = 18.4700 \div 18.0200$$

$$c) 14.8600 + 11.4600 = 11.4600 + 14.8600$$

$$d) 11.4600 - 18.0200 = 18.0200 - 11.4600$$

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

27. Which of the following is true?

- a) $17.3800 \div (17.0800 \div 2.4000) = (17.3800 \div 17.0800) \div 2.4000$
b) $7.4700 - (17.3800 - 17.0800) = (7.4700 - 17.3800) - 17.0800$
c) $2.4000 + (7.4700 + 17.3800) = (2.4000 + 7.4700) + 17.3800$
d) $17.0800 \times (2.4000 \times 7.4700) = (17.0800 \times 2.4000) \times 7.4700$
(i) {c,d} (ii) {b,d} (iii) {a,b,c} (iv) {a,c} (v) {a,d,c}
-

28. Which of the following is true?

- a) $14.6300 \div (12.4900 + 8.0000) = (14.6300 \div 12.4900) + (14.6300 \div 8.0000)$
b) $12.4900 \times (8.0000 + 14.1200) = (12.4900 \times 8.0000) + (12.4900 \times 14.1200)$
c) $14.1200 - (14.6300 \times 12.4900) = (14.1200 - 14.6300) \times (14.1200 - 12.4900)$
d) $8.0000 \times (14.1200 - 14.6300) = (8.0000 \times 14.1200) - (8.0000 \times 14.6300)$
(i) {c,d} (ii) {b,d} (iii) {a,c,b} (iv) {a,b} (v) {a,d,b}
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Assignment Key

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