

MATHS

BOOKS - MBD

RATIONAL NUMBERS

Example

$$-rac{2}{3} imes rac{3}{5} + rac{5}{2} - rac{3}{5} imes rac{1}{6}$$



2. Using appropriate properties find :

$$rac{2}{5} imes \left(-rac{3}{7}
ight) - rac{1}{6} imes rac{3}{2} + rac{1}{14} imes rac{2}{5}$$



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3. Write the additive inverse of each of the following:

2/8



4. Write the additive inverse of each of the following:

-5/9



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5. Write the additive inverse of each of the following . $\frac{-6}{-5}$



6. Write the additive inverse of each of the following . $\frac{2}{-9}$



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7. Write the additive inverse of each of the following:

19/-6



- **8.** Verify that (– x) = x for. $x = \frac{11}{15}$
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9. Verify that : -(-x) = x for :

$$x = -\frac{13}{17}$$



10. Find the multiplicative inverse of the following: -13

11. Find the multiplicative inverse of the following : $\frac{-13}{19}$



12. Find the multiplicative inverse of the following: $\frac{1}{5}$



13. Find the multiplicative inverse of the following: $\frac{-5}{8} \times \frac{-3}{7}$



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14. Find the multiplicative inverse of the $\mathsf{following}: -1 \times \frac{-2}{5}$



15. Find the multiplicative inverse of the following: -1



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16. Name the property under multiplication used in each of the following.

$$\frac{-4}{5} \times 1 = 1 \times \frac{-4}{5} = -\frac{4}{5}$$



17. Name the property under multiplication

used in each of the following.

$$-rac{13}{17} imesrac{-2}{7}=rac{-2}{7} imesrac{-13}{17}$$



18. Name the property under multiplication used in each of the following.

$$\frac{-19}{29} \cdot \frac{29}{-19} = 1$$





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20. Tell what property allows you to compute

$$rac{1}{3} imes \left(6 imesrac{4}{3}
ight)$$
as $\left(rac{1}{3} imes6
ight) imesrac{4}{3}$



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21. Is $\frac{8}{9}$ the multiplicative inverse of $-1\frac{1}{9}$?

Why or why not?



22. Is 0.3 the multiplicative inverse of $3\frac{1}{3}$? Why or why not?



23. The rational number that does not have a reciprocal.



24. The rational numbers that are equal to their reciprocals.



25. The rational number that is equal to its negative.



26. Fill in the blanks : Zero has _____

reciprocal.



27. Fill in the blanks:

The numbers And Are their own reciprocals.



28. Fill in the blanks:

The reciprocal of -5 is



29. Fill in the blanks:

Reciprocal of 1/x, where $x \neq 0$ is



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30. Fill in the blanks:

The product of two rational numbers is always

a



31. Fill in the blanks:

The reciprocal of a positive rational number is



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32. Find using distributivty:

$$\left(\,-\,rac{3}{4} imesrac{2}{3}
ight)+\left(\,-\,rac{3}{4} imes\,-\,rac{5}{6}
ight)$$



33. Find using distributivty:

$$\left(\,-\,rac{2}{3} imesrac{5}{6}
ight)+\left(\,-\,rac{2}{3} imesrac{7}{2}
ight)$$



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34. Using Appropriate properties find :

$$\frac{2}{3} \times -\frac{3}{7} - \frac{1}{14} - \frac{3}{7} \times \frac{3}{5}.$$



35. Find the additive inverse of each of the following:

1/3



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36. Find the additive inverse of each of the following:

 $\frac{23}{9}$



37. Find the additive inverse of each of the following:

$$-\frac{3}{11}$$



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38. Find the additive inverse of each of the following:

$$-\frac{8}{-7}$$

39. Verify that :-(-x) = x for

$$x = \frac{13}{17}$$



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40. Verify that :-(-x) = x for

$$x = -\frac{21}{31}$$



41. Find the multiplicative inverse of the following:

12



42. Find the multiplicative inverse of the following:

-8



43. Find the multiplicative inverse of the following:

5/16



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44. Find the multiplicative inverse of the following:

-14/17



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45. Name the property under multiplication used in each of the following:

$$(-3/16 \times 8/15) = (8/15 \times -3/16)$$



46. Name the property under multiplication used in each of the following :

$$\frac{2}{3}x\left(\frac{6}{7}\times -\frac{14}{15}\right) = \left(\frac{2}{3}\times \frac{6}{7}\right)\times -\frac{14}{15}$$



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47. Name the property under multiplication used in each of the following:

$$5/6x(-4/5 + +-7/10)=(5/6 x -4/5) + (5/6 x -7/10)$$



48. Multiply -7/19 by the reciprocal of 5/13.



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49. Tell what property allow you to compute :

$$rac{3}{4} imes igg(8 imesrac{2}{5}igg)asigg(rac{3}{4} imes 8igg) imesrac{2}{5}$$



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50. Represent these numbers on the number line. $\frac{7}{4}$

51. Represent these numbers on the number line. $\frac{-5}{6}$



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52. Represent $\frac{-2}{11}$, $\frac{-5}{11}$, $\frac{-9}{11}$ on the number line.



53. Write five rational numbers which are smaller than 2.



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54. Find ten rational numbers between $\frac{-2}{5}$ and $\frac{1}{2}$.



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55. Find five rational numbers between $\frac{2}{3}$ and



56. Find five rational numbers between $\frac{-3}{2}$ and $\frac{5}{3}$



57. Find five rational numbers between $\frac{1}{4}$ and $\frac{1}{3}$



58. Write five rational numbers greater than -2.



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59. Find ten rational numbers between $\frac{3}{5}$ and $\frac{3}{4}$





60. Represent the following numbers on the number line:



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61. Represent the following numbers on the number line:

2/7



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62. Represent the following numbers on the number line:



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63. Represent the following numbers on the number line:

-3/7



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64. Find a rational number lying between 1/3 and 1/2.



65. Find a rational number lying betewen 3 and 4.



66. Find three rational umber lying between 2/3 and 3/4



67. Find any ten rational numbers between

$$\frac{-5}{6}$$
 and $\frac{5}{8}$.



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68. Find three rational numbers between $\frac{1}{4}$ and $\frac{1}{2}$.



69. Find three rational numbers between -2 and 0.



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70. Find two rational numbers between 1/5 and 1/2.



71. Find seven rational numbers between 1/3 and 1/2.



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72. The additive inverse of 2/8 is:

A.
$$-\frac{2}{8}$$

$$\mathsf{B.}-\frac{2}{-8}$$

c.
$$\frac{8}{2}$$

$$\mathsf{D.}-\frac{8}{2}$$

Answer:



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73. Find the multiplicative inverse of the following: -13

$$\mathsf{B.}\;\frac{1}{13}$$

$$\mathsf{C.} - \frac{1}{13}$$

D.
$$-\frac{10}{1}$$
.

Answer:



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74. Multiply $\frac{6}{13}$ by the reciprocal of $\frac{-7}{16}$

A.
$$\frac{6}{16}$$

$$\mathsf{B.}-\frac{6}{7}$$

c.
$$\frac{91}{96}$$

D.
$$-\frac{96}{91}$$

Answer:

75. The reciprocal of 8/21 is:

A.
$$-\frac{8}{21}$$

B.
$$\frac{21}{8}$$

$$C. - \frac{21}{8}$$

D. 1

Answer:



76. The reciprocal of -5 is The blank space is filled by:

A.
$$\frac{1}{5}$$

B. 5

$$\mathsf{C.} - \frac{1}{5}$$

D. 1

Answer:



77. Fill in the blanks : Reciprocal of $\frac{1}{x}$, where

$$x
eq 0$$
 is _____.

- A. x
- B.-x
- C. 1

$$\mathrm{D.}-\frac{1}{x}$$

Answer:



78. The reciprocal of a postitive rational number isThe blank space is filled by :

A. Negative

B. Zero

C. 1

D. Positive.

Answer:



79. A rational number between 1 and 2 is:

A.
$$\frac{1}{2}$$

A.
$$\frac{1}{2}$$
B. $\frac{2}{3}$

$$\mathsf{C.}\ \frac{3}{2}$$

D.
$$\frac{1}{3}$$

Answer:



80. The rational number between 1/4 and 1/2 is

A. $\frac{3}{2}$ B. $\frac{3}{4}$

c. $\frac{3}{8}$

D. $\frac{1}{8}$.

Answer:



81. A rational number between 3/8 and 1/2 will

be:

A. $\frac{5}{8}$

B. $\frac{7}{16}$

 $\mathsf{C.}\ \frac{5}{16}$

D. $\frac{3}{16}$

Answer:

