MATHS

BOOKS - JNAN PUBLICATION

MULTIPLICATION AND DIVISION OF A FRACTION BY WHOLE NUMBER AND BY FRACTION

Example

1. Sraboni had Rs. 100, she spent 1/2 of her money at a bookshop and 1/4 of her money at the grocery, shop. How much money did she pay at bookshop and at the grocery? And how much money is left with her?

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2. In our art class, we were asked to draw a scenery. Samir took 2/5 part of 1 hr, Mita took 3/5 part of 1 hr, rina took 5/12 part of 1 hr, Ajiij

did it in 1/2 part of 1 hr and Sabbar finished it in 7/12 part of 1 hr. Let us calculate how much time each of them took to draw the scenery and also who took maximum time to finish the work & who took minimum time.

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3. Express 5/8 part of Rs. 2 in rupees and paise.

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4. Let us multiply—(i) $120 \times \frac{3}{5}$

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5. Let us multiply—(ii) $2 \times 215 \times \frac{3}{5}$

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6. Let us multiply— (iii) $500 \times \frac{17}{25}$

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7. Let us multiply— (iv) $160 \times \frac{4}{13}$

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8. (i) $\frac{3}{4}$ of 1 year = ? Month

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9. (ii) $\frac{3}{4}$ of Rs. 5 = ? Paise

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10. (iii) $\frac{3}{5}$ of 60 apples = ? Apples

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11. (iv) $\frac{3}{20}$ of 40 liter

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12. LET US MEAUSRE LAND Rahim uncle flowering in half portion of his recangular

field. The length and breadth of the field are 50 metre and 40 metre respectively.

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13. Anyesha bought 1 metre long ribbon. But to make a border of a card, she does not need such a long piece. So she cuts lapout 2/5 part of it. It is still longer for the purpose. Then she again cuts of 3/4 portion from 2/5 part of ribbon.how much she actually used for border making?


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14. Mohini loves to read story books. She finishes 1/3 part of the book in an hour. Let us find, what part of book she read in 5/6 of an hour.

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15. Let us find 5/18 is greater or less than 1/3 and 5/6 so compare the fraction, denominator

must be made equal to 18 (since L.C.M of 3 and 6 is 18)

16. Let us find whether we get the same relation when two improper fraction are multiplied.

17. Rohit can walk $1\frac{1}{2}$ km in 1 hr. Let us find how far he can walk in $6\frac{1}{2}$ hrs.

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18. Ourselves - (2) Rafikul uncle built a house on 3/5 of 4/7 part of his land, and rest is left for rest of the land the cultivation. Let us find on what part of land he built his house.

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19. Let us multiply the follwing (i) 2/3 × 5/6 (ii) 7/8 × 3/10 (iii) $19\frac{3}{4}$ × 1/7 (iv) 16/5 × 27/7

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20. The product of two proper fractions is always ? (Proper/improper) fraction.

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21. The product of two improper fractions is always ? (proper/ improper) fraction.

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22. Few friends have come at At Ayeshna's place. Ayesha brought 6 applies. Each friend ate $1\frac{1}{2}$ apples. And no apples are left. Let's find, how many friends of Ayesha ate the apples?

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23. There are 9 boiled eggs. If each wants to have $1\frac{1}{2}$ eggs, lets find, how many can eat eggs?

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24. There are 5 packets of biscuits. If each has 1/4 part of a packet of biscuits. Let's find how many can eat the biscuits.

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25. Find the values of the following - (i) $4 \div \frac{1}{3}$

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26. Find the values of the following - (ii) $3 \div \frac{1}{6}$

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27. Find the values of the following - (iii) $8 \div \frac{1}{5}$

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28. Find the values of the following - (iv) $5 \div \frac{1}{4}$

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29. Find the values of the following - (v) $6 \div \frac{1}{2}$

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30. Find the values of the following - (iv) $15 \div \frac{5}{7}$

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31. Find the values of the following - (vii) $20 \div \frac{4}{5}$

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32. Find the values of the following - (viii) $9 \div 1\frac{2}{25}$

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33. Find the values of the following - (ix) $7 \div 2\frac{3}{16}$

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34. Find the values of the following - (x) $4 \div 2\frac{10}{13}$

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35. Find the values of the following - (xi) $11 \div \frac{55}{18}$

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36. Find the values of the following - (xii)

$18 \div \frac{3}{5}$

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37. (i) $\frac{7}{8} \div \frac{21}{5}$

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38. (ii) $\frac{3}{20} \div \frac{9}{7}$

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39. (iii) $5\frac{2}{3} \div \frac{1}{6}$

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40. (iv) $\frac{?}{?} \div \frac{?}{?}$ (Lets me take two proper fraction.)

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41. Sarjeena Khatoon's father is returing home today. So Sarjeena is accompaying her brother to the station. The Staion is at a distance of $14\frac{2}{3}$ km from Sarjeen's house. They covered 1/8 part of the distance on foot, 11/16 part of distance by bus and the remaining part in an auto richshaw. Let's find, what distance did they cover in autorickshaw.

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42. Habib uncle has a furniture shop of next to Sarjeena's house. In his shop, there is a log of length $12\frac{3}{5}$ m. He, cuts off $4\frac{1}{5}$ m. of the log and keeps it apart. He divided the remaining portion of log into 3 equal parts, with 3/7 parts of one of three parts, he decided to make small wooden things. Let us calculate, what lenght of log he will use to make those small things. Firstly, let us find out, what lenght of log left when 4 1/5 m is out off.

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43. Father brought 10 ltr. Of drinking water from a nearby tubewell. Mather used 1/5 part of water for cooking and 1/4 part was used for drinking purpose. Let us find how many liter of water is left?

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44. find the value of (i) $3 \times \frac{6}{11}$

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45. find the value of (ii) $11 \times \frac{2}{3}$

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46. find the value of (iii) $\frac{7}{3} \times 2\frac{3}{2}$

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47. find the value of (iv) $\frac{3}{8} \times \frac{6}{4}$

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48. find the value of (v) $\frac{6}{49} \times \frac{7}{3}$

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49. find the value of (vi) $\frac{15}{28} \times 2\frac{1}{3}$

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50. find the value of (vii) $4\frac{8}{13} \times 7\frac{4}{5}$

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51. find the value of (viii) $2\frac{3}{5} \times 6$

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52. A bucket holds 1/2 litre of water. Let us calculate, how much water 7 such buckets can hold.

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53. After retirement, Akhilbabu donated 1/4 part of his property to local library, 1/6 part of the remaining property was given to his wife and rest was divided equally among his two sons. Let us calculate to find, what part of his property was given to his wife and each of two sons.

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54. From 1/2 part of Rs. 150, how much is to be taken away so that only Rs. 30 is left.

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55. Find the value when 3 times of 6/7 id added to $2\frac{6}{7}$?

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56. In the first year, the cultural programme of the town had spectators 1400 spectors. Next years, the number increased by 7/10 parts. Let's find the total number of next year.

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57. Let's find the reciprocals of the following fraction and mark the reciprocals 'O' sign which are proper fractions. (i) 7/5

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58. Let's find the reciprocals of the following fraction and mark the reciprocals 'O' sign which are proper fractions. (ii) 1/3

59. Let's find the reciprocals of the following fraction and mark the reciprocals 'O' sign which are proper fractions. (vi) 5/8

60. Let's find the reciprocals of the following fraction and mark the reciprocals 'O' sign which are proper fractions. (iv) 9/7

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61. Let's find the reciprocals of the following fraction and mark the reciprocals 'O' siga which are proper fractions. (v) 12/5

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62. Let's find the reciprocals of the following fraction and mark the reciprocals 'O' sign which are proper fractions. (vi) 11/8

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63. Let's find the reciprocals of the following fraction and mark the reciprocals 'O' sign which are proper fractions. (vii) 1/8

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64. Which number has reciprocal as itself?

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65. Rama gives me 2/3 part of the total number of stamps she has. If she gives me 18 stamps let us find how many stamps Rama has.

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66. Rajia give 2/5 part of money to Debnath and 3/10 part of money to Sunita. If she has to 180 left. Let us find how much money Rajia had at the beginning.

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67. Let's find the values - $15 \div \frac{5}{3}$

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68. Let find the values : 14 ÷ 7/2

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69. Let find the values : 6/13 ÷ 5

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70. Let's find the values - $\frac{12}{19} \div 6$

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71. Let's find the values - $5\frac{1}{5} \div \frac{13}{2}$

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72. Let's mark '√' the correct answer - (i) How many 1/16 are there in 3/4 (a) 64 (b) 12 (c) 64m (d) 3

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73. Let's mark '√' the correct answer - (ii) 7/8 part of a ribbon is 56 m. Let's calculate the original length of the riboon. (a) 48m (b) 64m (c) 63 m (d) 72m

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74. Let's mark '√' the correct answer - (ii) Reciprocal of $5+\frac{6}{7}$ will be - (a) $5\frac{3}{4}$ (b) $\frac{41}{7}$ (c) $\frac{7}{41}$ (d) $\frac{7}{56}$

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75. From $16\frac{2}{3}$ m long ribbon, 3/8 part is cut off. If it is further divided into 5 equal pieces, lets find the length of each pieces.

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76. Father bought $12\frac{7}{10}$ m of cloth for window curtains. But there was already $5\frac{3}{5}$ m of cloth for curtain at home. $4\frac{5}{6}$ m of cloth is required to make curtains for each of 3 windows. What length of cloth will remain?

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77. My grandmother prepared some pickle. She removed 4/7 part of the pickle in a glass jar for future use. Rest she divided among 6 of us. Let's find how much each of us will get.

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78. Mehboob and his group decided that in 33 days they would repair 24 11/15 km of road.

They repaird 11/15 km of road each day, for 25 days. If they are to finish the work in due time, at what rate they would work for the remaining days?

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79. 5 is added to 3/7 and the sum is multiplied by $4\frac{2}{3}$. Now the product is divided by $4\frac{4}{9}$ and the quotient is subtracted from $8\frac{2}{5}$, Let's find the number after subtraction.

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80. Simplify- (i) $\frac{1}{5}+\frac{2}{3}-\frac{1}{2}$

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81. Simplify - (ii) $\frac{1}{5}+\frac{1}{2}-\frac{2}{15}-\frac{1}{6}$

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82. Simplify - (iii) $\frac{7}{12}+5\frac{2}{9}+\frac{11}{18}-2\frac{5}{12}$

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83. Simplify - (iv) $3\frac{1}{2} + \frac{7}{6} \times \frac{3}{8} - \frac{5}{24}$

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84. Simplify - (v) $\frac{3}{8} + \frac{2}{3} of \frac{1}{9} of \frac{1}{6}$

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85. Simplify - (vi) $6\frac{2}{5} + 3\frac{1}{3} + \frac{1}{2} - \frac{7}{10}$

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86. Simplify - (vii) $\left\{\frac{11}{16}+\left(\frac{5}{6}+\frac{2}{3}\right)\right\}-\frac{1}{3}$

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87. Simplify - (viii) $4\frac{2}{3}+\frac{2}{3}-\frac{3}{8}$

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88. Simplify - (ix) $2\frac{3}{4}+3\frac{1}{2}+2\left(\frac{1}{7}\right)+13\frac{1}{4}$

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89. Simplify - (x)

$$1-\left[\frac{1}{2}+\left\{2-\frac{1}{2}\left(\frac{1}{2}-\frac{1}{3}-\frac{1}{6}\right)\right\}\right]$$

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90. Simplify - (xi) $2-\frac{1}{10}\times\frac{1}{3}+\frac{4}{25}+\frac{1}{8}$

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91. Simplify - (xii) $1\frac{1}{2}[3\frac{1}{2} + 2\frac{1}{3}\{1\frac{1}{4} + (2+ 3\frac{2}{3}$)}]

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Exercise

1. Let's do mentally - (a) How much is $\frac{1}{2}$ of Rs. 10?

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2. Let's do mentally - (b) How much is 1/3 part of Rs. 24?

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3. Let's do mentally - (c) $\frac{1}{3}$ of how much is Rs. 4?

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4. Let's do mentally - (d) 1/6 part of what length is 6 cm?

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5. Let's do mentally - (e) I have taken 1/3 part of mango from Mala's busket of mangoes. If I there were 39 mangoes, how many I have taken?

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