



## **MATHS**

## **BOOKS - JNAN PUBLICATION**

## Fundamental Concept Of Ratio And Proportion

**Example** 

1. (1) I have taken measurement of the floor of

my living room, I see that the rectangular

shaped floor is of 8 m length and 5 m breadth.

Let's find the ratio of its length to it breadth. Let's also write if the ratio is ratio of grater or lesser inequality.



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2. Sabita is making garlands of chinarose and marigold. If she made 12 garlands of chinarose and 15 of marigold, then let's find what is the ratio of the number of garlands of chinarose and marigold.

**3.** The ratio of my age to Sutapa's age is 5 : 6, If my age is 10 years, find the age of Sutapa.



**4.** My mother gave sweets to me and Raju. Me and Raju ate sweets in the ratio of 1 : 3, Let's find how many sweets my mother gave us. [Let's try any 4 values].



**5.** Today 10 of us have come to park to play. If the ratio of number of girls and boys is 2 : 3 in our group, how many girls and boys have come to play.



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**6.** Father bought 4 pairs of bananas from market. If brother and sister ate those

bananas in the ratio of 1 : 3, let's find how many banana each of them ate.



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7. For prize distribution ceremony prizes have to be bought. We went to many shops to buy prizes. Now 5 tiffin boxes of equal price is Rs. 175 again, from a local shop, 4 tiffin boxes of equal price was Rs. 140,Let's find, if the price of tiffin box at a local shop is same as that of others.

**8.** Rabin bought 6 similar saucer's for Rs. 144, But Lila bought 4 saucers of the same kind from a different shop for Rs. 88. Let's find, if the price of the saucer is same in cases. Lets find if 6, 4, 144, 88 are is proportion.



**9.** Let's find if 6, 2, 54, 18 are in propotion or not.



**10.** To find, if the 4 number 22, 33, 50, 75 are in proportion without expressing them in proportion.



**11.** Let's find, if the following number are in proportion (a) 13, 52, 30, 120



**12.** Let's find, if the following number are in proportion (b) 22, 11, 72, 36



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**13.** Let's find, if the following number are in proportion (c) 45, 27, 15, 25



**14.** Let's find, if the following number are in proportion (d) 18, 20, 27,30



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**15.** Let's find, if the following number are in proportion (e) 11, 22, 36, 72



16. Let's write, if the following relation are

True/ False (a) 4.5 litre: 13.5 litre:: 4 kg: 12kg



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17. Lets write, if the following relation are True/

False (b) 12km: 8 km:: 1 km: 40 min



18. Let's write, if the following relation are

True/ False ( c) 20 man : 45 man :: 180 rupees :

270 rupees



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19. Let's write, if the following relation are True

/ False (d) 15 : 9 :: 35 : 21



**20.** Do ourselves - Let's find if the following numbers are in proportion or not. If they are in proportion, let's write all the possible proportions with them. (a) 3, 14, 4, 20



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**21.** 3.(a) Let's find they are in proportion or not:1/2, 1/3, 1/4, 1/6



22. 3. (b) Let's find theyare in proportion or not:1/5, 1/10, 1/16, 1/32



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23. 3. (c)Let's find they are in proportion or not: 1/3, 1/6, 1/9, 1/18



**24.** 3. (d) Let's find they are in proportion or not :1/8, 1/24, 1/5, 1/15



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**25.** 3. (e) Let's find they are in proportion or not: 1/3, 1/5, 1/4, 3/10



**26.** 3. (f)Let's find they are in proportion or not: 8/3, 8, 5/3, 8



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**27.** Which of the following cases can be represented in ration (d) Litres of water in my water bottle and Temperature of water.



**28.** Which of the following cases can be represented in ration (e) How long I played today and how long did my brothers play.



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**29.** Express the following quantities in ratio and identify the ratio of greater inequality and ratio of lesser inequality. (i) 10 kg, 15kg



**30.** Express the following quantities in ratio and identify the ratio of greater inequality and ratio of lesser inequality. (ii) 27 things and 18 things



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**31.** Express the following quantities in ratio and identify the ratio of greater inequality and ratio of lesser inequality. (iii) Rs. 30 & Rs. 22.50



**32.** Express the following quantities in ratio and identify the ratio of greater inequality and ratio of lesser inequality. (iv) 4.9 litre and 8.4 litre



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**33.** Express the following quantities in ratio and identify the ratio of greater inequality and ratio of lesser inequality. (v) 52 m and 78 m



**34.** Express the following quantities in ratio and identify the ratio of greater inequality and ratio of lesser inequality. (vi) 1 hr 24 mins and 6 hrs 18 min.



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**35.** A bamboo stick is 2m long. 75 cm of it is coloured red and rest part coloured white. (i) find the ratio between the total length of bamboo and the portion painted red.



**36.** A bamboo stick is 2m long, 75 cm of it is coloured red and rest part coloured white. (ii) Let's find the ratio between the total length of bamboo and the porition painted white.



**37.** A bamboo stick is 2m long, 75 cm of it is coloured red and rest part coloured white. (iii)

Let's find the ratio between the part colooured red and coloured white.



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**38.** The ratio of length and breadth of my room is 7 : 5. Let's write 4 possible perimeters of the room in the above ratio,



**39.** I have 26 stamps. Myself and Mita shall divide the stamps in the ratio of 8 : 5. Let's find how many stamps each of us will have.



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**40.** The ratio of my text books and story books is 4 : 3. If number of text books is 28, let's find the number of story books and total numbers of books.



**41.** In a particular type of jewellery the ratio of gold and silver is 4 : 7. In such type of jewellery ornament, how many milligrams of gold has been mixed with 357 milligram of silver, is to be calculated.



**42.** Let's write the ratio of the three angles of equilateral triangle.



**43.** Let's write the ratio of the angles of a right angled isoscale triangle.



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**44.** Let me divided ₹. 210 among Fatema and Sakira in the ratio of 3 : 4. Let me find how much each would get?



**45.** Mohit bought 6 bananas for ₹. 18 from a vendor and Raju bought 2 dozen of bananas for ₹. 72 from another vendor. Let's express in ratio to find who paid more for bananas.



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**46.** Let's find which of the following ratios are equal ratios lets try to find. (i) 3 : 3 and 5 : 3



**47.** Let's find which of the following ratios are equal ratios lets try to find. (ii) 20 : 24 and 25 : 30



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**48.** Let's find which of the following ratios are equal ratios lets try to find. (iii) 1: 9 and 9: 18



**49.** Let's find which of the following ratios are equal ratios lets try to find. (iv) 28 : 21 and 20 : 15



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**50.** Let's find which of the following ratios are equal ratios lets try to find. (v) 1.4 : 0.6 and 6.3 : 2.7



**51.** Let's find which of the following ratios are equal ratios lets try to find. (vi) 52: 39 and 44:



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**52.** Let's verify which of the following numbers are in proportion. (i) 9, 7, 36, 28



**53.** Let's verify which of the following numbers are in proportion. (ii) 12, 30, 14, 70



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**54.** Let's verify which of the following numbers are in proportion. (iii) 24, 6, 108, 27



**55.** Let's verify which of the following numbers are in proportion. (iv)  $\frac{1}{2}, 1\frac{3}{5}, 1\frac{1}{5}$ 



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**56.** Let's verify which of the following numbers are in proportion. (v) 72, 45, 70, 25



**57.** The height of my friend Priya is 160 cm and the height of her mother is 170 cm. Again Priya's weight is 40 kg and her mother's weight is 42.5 kg. Let's find if their weights are in proportional to their heights.

