

Name:

Multiplicative comparison

Question 1

Thomas has 3 boxes, each with 8 balls.
He wants to place the balls evenly into 4 boxes.
How many balls will be in each of the 4 boxes?

Question 2

4 teams of 9 children are asked to reorganise themselves into 6 equal teams.
How many children will be in each new team?

Question 3

Amelia placed four 10 kg weights on one side of an equal arm balance.
How many 8 kg weights are needed on the other side to balance the scale?

Question 4

Mrs Jones bought 5 packets of sweets, with 12 sweets in each packet.
If she is to share the sweets equally between 6 children, how many sweets will each child get?

Question 5

There are an equal number of students in Class 'A' and Class 'B'.
Class 'A' has 5 table groups of 8 children. Class 'B' has 4 table groups.
How many children on each table group in Class 'B'?

Question 6

8 lines of people each containing 10 people are divided into 5 equal groups.
How many people in each new group?

Question 7

James and Ian bought an equal number of stamps. Ian bought 5 packets with 12 stamps in each packet. James bought 3 packets.
How many in each of James' packets?

Question 8

12 teams each containing 4 students are reorganized into 2 equal teams.
How many students in each new team?

Question 9

Three 25 L drums of oil are used to fill 5 bottles.
How much oil in each bottle?

Question 10

Five 8 cm sticks have the same length as how many 20 cm sticks?

Multiplicative comparison solution

<p>Question 1 Thomas has 3 boxes, each with 8 balls. He wants to place the balls evenly into 4 boxes. How many balls will be in each of the 4 boxes?</p>	<p>Solution Calculate how many balls will be in each of 4 boxes. We know that Thomas needs to place 24 balls into 4 boxes because $3 \times 8 = 24$ So, divide 24 by 4 which equals 6</p>
<p>Question 2 4 teams of 9 children are asked to reorganise themselves into 6 equal teams. How many children will be in each new team?</p>	<p>Solution To calculate the number of children in each new team, multiply the number of children in each team which is 9 by the number of teams which is 4 to get the total number of children. Then place the 36 children into 6 equal teams. 36 divided by 6 equals 6.</p>
<p>Question 3 Amelia placed four 10 kg weights on one side of an equal arm balance. How many 8 kg weights are needed on the other side to balance the scale?</p>	<p>Solution To calculate the number of 8 kg weights to balance the scale, firstly multiply 10 kg by four to get the total weight of that side of the scale which is 40 kg. Both sides of the scale must be equal. Therefore 40 kg is equal to 8 kg times 5.</p>
<p>Question 4 Mrs Jones bought 5 packets of sweets, with 12 sweets in each packet. If she is to share the sweets equally between 6 children, how many sweets will each child get?</p>	<p>Solution To calculate the number of sweets each child will get, firstly find out the total amount of sweets that is equal to 5×12 which is 60. Next share the total number of sweets amongst 6 children. 60 divided by 6 equals 10.</p>
<p>Question 5 There are an equal number of students in Class 'A' and Class 'B'. Class 'A' has 5 table groups of 8 children. Class 'B' has 4 table groups. How many children on each table group in Class 'B'?</p>	<p>Solution To calculate the number of students on each table group in Class B, find the total number of students in Class A which is 5 table groups times 8 children which equals 40 children. If there are 4 table groups in Class B, divide the total number of children by 4. 40 divided by 4 equals 10</p>
<p>Question 6 8 lines of people each containing 10 people are divided into 5 equal groups. How many people in each new group?</p>	<p>Solution To calculate the number of people in each new group, first get the total number of people by multiplying the number of lines of people by the number of people in each line. Then divide this by 5 as there are five equal groups. 80 divided by 5 which equals 16.</p>
<p>Question 7 James and Ian bought an equal number of stamps. Ian bought 5 packets with 12 stamps in each packet. James bought 3 packets. How many in each of James' packets?</p>	<p>Solution To calculate the number of stamps in each of James' packets, firstly multiply the packets Ian bought by the number of stamps in each packet. James then bought the same number of stamps as Ian which was 60. James bought 3 packets. 60 divided by 3 equals 20.</p>
<p>Question 8 12 teams each containing 4 students are reorganized into 2 equal teams. How many students in each new team?</p>	<p>Solution To calculate the number of students in each new team, find the total number of students which is 12 multiplied by 4 which equals 48. Divide this number of students by 2 to get the number of each team. 48 divided by 2 equals 24.</p>
<p>Question 9 Three 25 L drums of oil are used to fill 5 bottles. How much oil in each bottle?</p>	<p>Solution To calculate how much oil is in each bottle, first find the total amount of oil which is 3 multiplied by 25 L which equals 75 L. This amount is divided by 5 to give the amount of oil in each bottle. 75 divided by 5 equals 15</p>
<p>Question 10 Five 8 cm sticks have the same length as how many 20 cm sticks?</p>	<p>Solution To calculate the number of 20 cm sticks, first find the total length of five sticks which is five multiplied by 8 sticks which is 40 cm. As the length of both is the same, divide 40 by the length of the sticks. 40 divided by 20 which equals 2.</p>