EXERCISE 6A
1. Express each of the given ratios in its simplest form:
   (i) 22: 66
   (ii) 1.5: 2.5
   (iii) 6 1/4: 12 1/2
   (iv) 40 kg: 1 quintal
   (v) 10 paise: ₹ 1
   (vi) 200 m: 5 km
   (vii) 3 hours: 1 day
   (viii) 6 months: 1 1/3 years
   (ix) 1 1/3: 2 1/4: 2 1/2
Solution:

(i) 22: 66
It can be written as
= 22/66
We know that the HCF of 22 and 66 is 22
Dividing both numerator and denominator by 22
= (22 ÷ 22)/ (66 ÷ 22)
So we get
= 1/3
= 1: 3

(ii) 1.5: 2.5
It can be written as
= 1.5/ 2.5
Multiplying both numerator and denominator by 10
= 15/25
We know that the HCF of 15 and 25 is 5
Dividing both numerator and denominator by 5
= (15 ÷ 5)/ (25 ÷ 5)
So we get
= 3/5
= 3: 5

(iii) 6 1/4: 12 1/2
It can be written as
= 25/4: 25/2
= 25/4 × 2/25
By further calculation
= 2/4
So we get
= 1/2
= 1: 2

(iv) 40 kg: 1 quintal
We know that
1 quintal = 100 kg
We get
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= 40 kg: 100 kg
It can be written as
= \frac{40}{100}
We know that the HCF of 40 and 100 is 20
Dividing both numerator and denominator by 20
= \frac{(40 ÷ 20)}{(100 ÷ 20)}
So we get
= \frac{2}{5}
= 2: 5

(v) 10 paise: ₹ 1
We know that
1 Rupee = 100 Paise
We get
= 10 paise: 100 paise
It can be written as
= \frac{10}{100}
So we get
= \frac{1}{10}
= 1: 10

(vi) 200 m: 5 km
We know that
1 km = 1000 m
We get
= 200 m: 5000 m
It can be written as
= \frac{200}{5000}
Here the HCF of 200 and 5000 is 200
Dividing both numerator and denominator by 200
= \frac{(200 ÷ 200)}{(5000 ÷ 200)}
So we get
= \frac{1}{25}
= 1: 25

(vii) 3 hours: 1 day
We know that
1 day = 24 hours
We get
= 3 hours: 24 hours
It can be written as
= \frac{3}{24}
So we get
= \frac{1}{8}
= 1: 8

(viii) 6 months: 1 1/3 years
We know that
1 year = 12 months
We get
= 6 months: $\frac{4}{3} \times 12$ months  
It can be written as  
= 6 months: 16 months  
= 6/ 16  
Here the HCF of 6 and 16 is 2  
Dividing both numerator and denominator by 2  
= $\left(\frac{6}{2}\right)/\left(\frac{16}{2}\right)$  
So we get  
= 3/ 8  
= 3: 8  

(ix) 1 1/3: 2 1/4: 2 1/2  
It can be written as  
= $\frac{4}{3}$: $\frac{9}{4}$: $\frac{5}{2}$  
We know that the LCM of 3, 4 and 2 is 12  
= $\left(\frac{16}{4}\right):\left(\frac{27}{4}\right):\left(\frac{30}{4}\right)$  
So we get  
= 16: 27: 30  

2. Divide 64 cm long string into two parts in the ratio 5: 3.  
Solution:  
We know that  
The sum of ratios = 5 + 3 = 8  
So the first part = $\frac{5}{8}$ of 64 cm = 40 cm  
Similarly the second part = $\frac{3}{8}$ of 64 cm = 24 cm  

3. ₹ 720 is divided between x and y in the ratio 4: 5. How many rupees will each get?  
Solution:  
It is given that  
Total amount = ₹ 720  
Ratio between x and y = 4: 5  
We know that  
The sum of ratios = 4 + 5 = 9  
So x’s share = $\frac{4}{9}$ of ₹ 720 = ₹ 320  
Similarly y’s share = $\frac{5}{9}$ of ₹ 720 = ₹ 400  

4. The angles of a triangle are in the ratio 3: 2: 7. Find each angle.  
Solution:  
It is given that  
Ratios in angles of a triangle = 3: 2: 7  
We know that  
The sum of ratios = 3 + 2 + 7 = 12  
In a triangle, the sum of all the angles = 180°  
So the first angle of the triangle = $\frac{3}{12} \times 180° = 45°$  
Second angle of the triangle = $\frac{2}{12} \times 180° = 30°$  
Similarly the third angle of the triangle = $\frac{7}{12} \times 180° = 105°$
5. A rectangular field is 100 m by 80 m. Find the ratio of:
(i) length to its breadth
(ii) breadth to its perimeter.
Solution:

It is given that
Length of the rectangular field = 100 m
Breadth of the rectangular field = 80 m
So the perimeter = 2 (length + breadth)
= 2 (100 + 80) m
By further calculation
= 2 × 180
= 360 m

(i) Ratio of length to its breadth
= 100: 80
Here the HCF of 100 and 80 is 20
Dividing both numerator and denominator by 20
= (100 ÷ 20)/ (80 ÷ 20)
So we get
= 5/4
= 5: 4

(ii) Ratio of breadth to its perimeter
= 80: 360
Here the HCF of 80 and 360 is 40
Dividing both numerator and denominator by 40
= (80 ÷ 40)/ (360 ÷ 40)
So we get
= 2/9
= 2: 9

6. The sum of three numbers, whose ratios are 3 1/3: 4 1/5: 6 1/8 is 4917. Find the numbers.
Solution:

It is given that
Sum of three numbers = 4917
Ratio between the three numbers = 3 1/3: 4 1/5: 6 1/8
It can be written as
= 10/3: 21/5: 49/8
We know that the LCM of 3, 5 and 8 is 120
= (400: 504: 735)/ 120
So we get
= 400: 504: 735

Here the sum of ratio = 400 + 504 + 735 = 1639
So the first number = 400/1639 of 4917 = 1200
Second number = 504/1639 of 4917 = 1512
Similarly the third number = 735/1639 of 4917 = 2205
7. The ratio between two quantities is 3: 4. If the first is ₹ 810, find the second.
Solution:

It is given that
The ratio between two quantities = 3: 4
So the sum of ratio = 3 + 4 = 7
Here the second quantity = (810 × 4)/ 3
We get

= 270 × 4
= ₹ 1080

8. Two numbers are in the ratio 5: 7. Their difference is 10. Find the numbers.
Solution:

It is given that
The ratio between two numbers = 5: 7
The difference between two numbers = 7 – 5 = 2
Here if 2 is the difference, the first number is 5
Similarly if 10 if the difference, the first number = 5/2 × 10 = 25
Second number = 7/2 × 10 = 35

9. Two numbers are in the ratio 10: 11. Their sum is 168. Find the numbers.
Solution:

It is given that
The ratio between two numbers = 10: 11
Sum of ratio between two numbers = 10 + 11 = 21
Sum of two numbers = 168
So the first number = 168/21 × 10 = 80
Similarly the second number = 168/21 × 11 = 88

10. A line is divided into two parts in the ratio 2.5: 1.3. If the smaller one is 35.1 cm, find the length of the line.
Solution:

It is given that
Ratio between two parts of a line = 2.5: 1.3
Multiplying by 10
= 25: 13
Here the sum of ratios = 25 + 13 = 38
Length of smaller one = 35.1 cm
So the length of the line = 38/13 × 35.1
We get

= 38 × 2.7 cm
= 102.6 cm

11. In a class, the ratio of boys to the girls is 7:8. What part of the whole class are girls?
Solution:

It is given that
Ratio of boys to the girls = 7: 8
Here the sum of ratios = 7 + 8 = 15
So the part of the whole class are girls = \(\frac{8}{15}\)

Hence, \(\frac{8}{15}\) part of the whole class are girls.

12. The population of a town is 180,000, out of which males are 1/3 of the whole population. Find the number of females. Also, find the ratio of the number of females to the whole population.

**Solution:**

It is given that
Total population = 180000
So the population of males = \(\frac{1}{3}\) of 180000 = 60,000
Similarly the population of females = 180000 – 60000 = 120000
Here the ratio of females to whole population = 120000: 180000 = 2: 3

13. Ten gram of an alloy of metals A and B contains 7.5 gm of metal A and the rest is metal B. Find the ratio between:
(i) the weights of metals A and B in the alloy.
(ii) the weight of metal B and the weight of the alloy.

**Solution:**

We know that
Total weight of A and B metals = 10 gm
A weight - 7.5 gm
So we get
= 10 – 7.5
= 2.5 gm

(i) Ratio between the weight of A and B in the alloy = 7.5: 2.5
It can be written as
= 75/10: 25/10
So we get
= 3: 1

(ii) Ratio between the weight of metal B and the weight of the alloy = 2.5: 10
It can be written as
= 25/10: 10
So we get
= 25: 100
= 1: 4

14. The ages of two boys A and B are 6 years and 8 months and 7 years and 4 months respectively. Divide ₹ 3,150 in the ratio of their ages.

**Solution:**

It is given that
Age of A = 6 years 8 months
It can be written as
= 6 × 12 + 8
= 72 + 8
= 80 months
Age of B = 7 years 4 months
It can be written as
= 7 \times 12 + 4
= 84 + 4
= 88 months
So the ratio between them = 80: 88 = 10: 11
Amount = ₹ 3150
We know that
Sum of ratio between them = 10 + 11 = 21
Here A share = \left(\frac{3150 \times 10}{21}\right) = ₹ 1500
Similarly B share = \left(\frac{3150 \times 11}{21}\right) = ₹ 1650

15. Three persons start a business and spend ₹ 25,000, ₹ 15,000 and ₹ 40,000 respectively. Find the share of each out of a profit of ₹ 14,400 in a year.
Solution:
It is given that
Investment of A = ₹ 25000
Investment of B = ₹ 15000
Investment of C = ₹ 40000
Here the ratio between their investment = 25000: 15000: 40000 = 5: 3: 8
So the sum of ratios = 5 + 3 + 8 = 16
Total profit = ₹ 14400
Share of A = \frac{14400}{16} \times 5 = ₹ 4500
Share of B = \frac{14400}{16} \times 3 = ₹ 2700
Share of C = \frac{14400}{16} \times 8 = ₹ 7200

16. A plot of land, 600 sq m in area, is divided between two persons such that the first person gets three-fifths of what the second gets. Find the share of each.
Solution:
It is given that
Area of plot of land = 600 sq m
Consider second share = x
So first share = \frac{3}{5} x
Here the ratio between them = \frac{3}{5}x: x
We get
= \frac{3}{5}: 1
= 3: 5
Sum of the ratio between them = 3 + 5 = 8
So the share of first person = 600/8 \times 3 = 225 sq m
Similarly the share of second person = 600/8 \times 5 = 375 sq m

17. Two poles of different heights are standing vertically on a horizontal field. At a particular time, the ratio between the lengths of their shadows is 2: 3. If the height of the smaller pole is 7.5 m, find the height of the other pole.
Solution:
It is given that
18. Two numbers are in the ratio 4: 7. If their L.C.M. is 168, find the numbers.
Solution:

It is given that
Ratio between two numbers = 4: 7
LCM of two numbers = 168
Consider first number = 4x
Second number = 7x
Now the LCM of 4x and 7x = 4 × 7 × x = 28x
By equating both the values
28x = 168
So we get
x = 168/28 = 6
So the required numbers
4x = 4 × 6 = 24
7x = 7 × 6 = 42

19. ₹ 300 is divided between A and B in such a way that A gets half of B. Find:
(i) the ratio between the shares of A and B.
(ii) the share of A and the share of B.
Solution:

Amount divided between A and B = ₹ 300

(i) We know that A gets half of B
So the ratio between the shares of A and B = ½ = 1: 2

(ii) We know that
Sum of the ratios = 1 + 2 = 3
Share of A = (300 × 1)/ 3 = ₹ 100
Share of B = (300 × 2)/ 3 = ₹ 200

20. The ratio between two numbers is 5: 9. Find the numbers, if their H.C.F. is 16.
Solution:

Consider first number = 5x
Second number = 9x
We know that
HCF of 5x and 9x = LCM of 5x and 9x = x
So HCF = 16
Here x = 16
We get the required numbers
5x = 5 × 16 = 80
9x = 9 \times 16 = 144

21. A bag contains ₹ 1,600 in the form of ₹ 10 and ₹ 20 notes. If the ratio between the numbers of ₹ 10 and ₹ 20 notes is 2: 3; find the total number of notes in all.
Solution:

Amount in the bag = ₹ 1,600
The bag has notes in the denomination of ₹ 10 and ₹ 20
So the ratio between the number of ₹ 10 and ₹ 20 notes = 2: 3
Consider the number of ₹ 10 notes = x
Number of ₹ 20 notes = y
Using the condition
\[10x + 20y = 1600 \quad \ldots \quad (1)\]
\[x = \frac{2}{3} y \quad \ldots \quad (2)\]
By substituting the value of x in equation (1)
\[10 \times \frac{2}{3} y + 20y = 1600\]
On further calculation
\[\frac{20}{3}y + 30y = 1600\]
By taking LCM
\[(20 + 60)/ 3 y = 1600\]
We get
\[80/3 y = 1600\]
We can write it as
\[y = (1600 \times 3)/ 80\]
\[y = 60\]
Substituting the value of y in equation (2)
\[x = \frac{2}{3} \times 60 = 40\]
So the total number of notes in all = x + y
\[= 60 + 40\]
\[= 100 \text{ notes}\]

22. The ratio between the prices of a scooter and a refrigerator is 4: 1. If the scooter costs ₹ 45,000 more than the refrigerator, find the price of the refrigerator.
Solution:

It is given that
Ratio between the prices of a scooter and a refrigerator = 4: 1
Cost of scooter = ₹ 45,000
Consider the cost of scooter = 4x
Cost of refrigerator = 1x
Using the condition
Cost of scooter > Cost of refrigerator
\[4x - 1x = 45000\]
On further calculation
\[3x = 45000\]
So we get
\[x = 45000/3 = ₹ 15000\]
So the price of refrigerator = ₹ 15000
EXERCISE 6B

1. Check whether the following quantities form a proportion or not:
(i) 3x, 7x, 24 and 56
(ii) 0.8, 3, 2.4 and 9
(iii) 1 ½, 3 ¼, 4 ½ and 9 ¾
(iv) 0.4, 0.5, 2.9 and 3.5
(v) 2 ½, 5 ½, 3.0 and 6.0

Solution:

(i) 3x, 7x, 24 and 56
If the quantities are in proportion
\[ 3x \times 56 = 7x \times 24 \]
By further calculation
\[ 168x = 168x \text{ which is true} \]
Therefore, 3x, 7x, 24 and 56 are in proportion.

(ii) 0.8, 3, 2.4 and 9
If the quantities are in proportion
\[ 0.8 \times 9 = 3 \times 2.4 \]
By further calculation
\[ 7.2 = 7.2 \text{ which is true} \]
Therefore, 0.8, 3, 2.4 and 9 are in proportion.

(iii) 1 ½, 3 ¼, 4 ½ and 9 ¾
If the quantities are in proportion
\[ 1 ½ \times 9 ¾ = 3 ¼ \times 4 ½ \]
By further calculation
\[ \frac{3}{2} \times \frac{39}{4} = \frac{13}{4} \times \frac{9}{2} \]
\[ \frac{117}{8} = \frac{117}{8} \text{ which is true} \]
Therefore, 1 ½, 3 ¼, 4 ½ and 9 ¾ are in proportion.

(iv) 0.4, 0.5, 2.9 and 3.5
If the quantities are in proportion
\[ 0.4 \times 3.5 = 0.5 \times 2.9 \]
By further calculation
\[ 1.40 = 1.45 \text{ which is not true} \]
Therefore, 0.4, 0.5, 2.9 and 3.5 are not in proportion.

(v) 2 ½, 5 ½, 3.0 and 6.0
If the quantities are in proportion
\[ 2 ½ \times 6.0 = 5 ½ \times 3.0 \]
By further calculation
\[ \frac{5}{2} \times 6.0 = \frac{11}{2} \times 3.0 \]
\[ 30/2 = 33/2 \text{ which is not true} \]
Therefore, 2 ½, 5 ½, 3.0 and 6.0 are not in proportion.

2. Find the fourth proportional of:
(i) 3, 12 and 4
(ii) 5, 9 and 45
(iii) 2.1, 1.5 and 8.4
(iv) 1/3, 2/5 and 8.4
(v) 4 hours 40 minutes, 1 hour 10 minutes and 16 hours

Solution:

(i) 3, 12 and 4
Here the 4\textsuperscript{th} proportional = \frac{12 \times 4}{3} = 16

(ii) 5, 9 and 45
Here the 4\textsuperscript{th} proportional = \frac{9 \times 45}{5} = 81

(iii) 2.1, 1.5 and 8.4
Here the 4\textsuperscript{th} proportional = \frac{1.5 \times 8.4}{2.1} = 1.5 \times 4 = 6.0

(iv) 1/3, 2/5 and 8.4
Here the 4\textsuperscript{th} proportional = \frac{2/5 \times 8.4}{1/3}
By further calculation
= 2/5 \times 8.4 \times 3/1
So we get
= (2 \times 84 \times 3)/(5 \times 10 \times 1)
= 252/25
= 10.08

(v) 4 hours 40 minutes, 1 hour 10 minutes and 16 hours
It can be written as
4 hours 40 minutes = 4 \times 60 + 40 = 240 + 40 = 280 minutes
1 hour 10 minutes = 1 \times 60 + 10 = 60 + 10 = 70 minutes
16 hours = 16 \times 60 = 960 minutes
So the fourth proportional = \frac{70 \times 960}{280} = 240 minutes
We get
= 240/60
= 4 hours

3. Find the third proportional of:
(i) 27 and 9
(ii) 2 m 40 cm and 40 cm
(iii) 1.8 and 0.6
(iv) 1/7 and 3/14
(v) 1.6 and 0.8

Solution:

(i) 27 and 9
Here the 3\textsuperscript{rd} proportional = \frac{9}{27} = 3

(ii) 2 m 40 cm and 40 cm
It can be written as
240 cm and 40 cm
Here the 3\textsuperscript{rd} proportional = \frac{40 \times 40}{240} = 20/3 = 6 2/3 cm

(iii) 1.8 and 0.6
Here the 3rd proportional = \(\frac{0.6 \times 0.6}{1.8} = 0.36 \div 1.8\)

Multiplying by 100
= 36/180
So we get
= 1/5
= 0.2

(iv) \(\frac{1}{7}\) and \(\frac{3}{14}\)
Here the 3rd proportional = \(\frac{3/14 \times 3/14}{1/7}\)
By further calculation
= 9/196 \times 7/1
So we get
= 9/28

(v) \(1.6\) and \(0.8\)
Here the 3rd proportional = \(\frac{0.8 \times 0.8}{1.6} = 0.64/1.6\)
By further calculation
= 64/160
= 2/5
= 0.4

4. Find the mean proportional between:
(i) \(16\) and \(4\)
(ii) \(3\) and \(27\)
(iii) \(0.9\) and \(2.5\)
(iv) \(0.6\) and \(9.6\)
(v) \(\frac{1}{4}\) and \(\frac{1}{16}\)

Solution:

(i) \(16\) and \(4\)
Here the mean proportional between them
= \(\sqrt{16 \times 4}\)
By multiplication
= \(\sqrt{64}\)
= 8

(ii) \(3\) and \(27\)
Here the mean proportional between them
= \(\sqrt{3 \times 27}\)
By multiplication
= \(\sqrt{81}\)
= 9

(iii) \(0.9\) and \(2.5\)
Here the mean proportional between them
= \(\sqrt{0.9 \times 2.5}\)
Multiplying and dividing by 10
= \(\sqrt{(9/10 \times 25/10)}\)
So we get
= \(\sqrt{225/100}\)
\( \frac{15}{10} = 1.5 \)

(iv) 0.6 and 9.6
Here the mean proportional between them
\[ \sqrt{(0.6 \times 9.6)} \]
Multiplying and dividing by 10
\[ \sqrt{\frac{6}{10} \times \frac{96}{10}} \]
So we get
\[ \frac{24}{10} = 2.4 \]

(v) \( \frac{1}{4} \) and 1/16
Here the mean proportional between them
\[ \sqrt{(\frac{1}{4} \times 1/16)} \]
So we get
\[ \frac{1}{8} \]

5. (i) If \( A: B = 3: 5 \) and \( B: C = 4: 7 \), find \( A: B: C \).
(ii) If \( x: y = 2: 3 \) and \( y: z = 5: 7 \), find \( x: y: z \).
(iii) If \( m: n = 4: 9 \) and \( n: s = 3: 7 \), find \( m: s \).
(iv) If \( P: Q = \frac{1}{2}: \frac{1}{3} \) and \( Q: R = 1 \frac{1}{2}: 1 \frac{1}{3} \), find \( P: R \).
(v) If \( a: b = 1.5: 3.5 \) and \( b: c = 5: 6 \), find \( a: c \).
(vi) If \( \frac{1}{4}: 2 \frac{1}{3} = p: q \) and \( q: r = 4 \frac{1}{2}: 5 \frac{1}{4} \), find \( p: r \).

Solution:

(i) \( A: B = 3: 5 \)
Now divide by 5
\[ = \frac{3}{5}: 1 \]
Similarly
\( B: C = 4: 7 \)
Now divide by 4
\[ = 1: \frac{7}{4} \]
So we get
\[ A: B: C = 3/5: 1: 7/4 \]
Multiplying by 5 × 4 = 20
\[ A: B: C = 12: 20: 35 \]

(ii) \( x: y = 2: 3 \)
Now divide by 3
\[ = \frac{2}{3}: 1 \]
Similarly
\( y: z = 5: 7 \)
Now divide by 5
\[ = 1: \frac{7}{5} \]
So we get
\[ x: y: z = 2/3: 1: 7/5 \]
Multiplying by 3 × 5 = 15
x: y: z = 10: 15: 21

(iii) m: n = 4: 9
We can write it as
m/n = 4/9
Similarly n: s = 3: 7
We can write it as
n/s = 3/7
So we get
m/n × n/s = 4/9 × 3/7
Here
m/s = 4/21
m: s = 4: 21

(iv) P: Q = 1/2: 1/3
It can be written as
P/Q = 1/2 × 3/1 = 3/2
Similarly
Q: R = 1 1/2: 1 1/3 = 3/2: 4/3
It can be written as
Q/R = 3/2 × 3/4 = 9/8
So we get
P/Q × Q/R = 3/2 × 9/8
P/R = 27/16
P: R = 27: 16

(v) a: b = 1.5: 3.5
It can be written as
a/b = 1.5/ 3.5 = 15/35 = 3/7
We know that
b: c = 5: 6
It can be written as
b/c = 5/6
So we get
a/b × b/c = 3/7 × 5/6
By further calculation
a/c = 5/14
a: c = 5: 14

(vi) p: q = 1 ¼: 2 1/3
We can write it as
= 5/4: 7/3
We get
p/q = 5/4 × 3/7 = 15/28
Similarly
q: r = 4 1/2: 5 1/4 = 9/2: 21/4
We can write it as
q/r = 9/2 × 4/21 = 6/7
So we get
p/q × q/r = 15/28 × 6/7
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\[ \frac{p}{r} = \frac{45}{98} \]
\[ p : r = 45 : 98 \]

6. If \( x : y = 5 : 4 \) and \( 2 : x = 3 : 8 \), find the value of \( y \).
Solution:

It is given that
\[ x : y = 5 : 4 \] and \[ 2 : x = 3 : 8 \]
We can write it as
\[ \frac{x}{y} = \frac{5}{4} \quad \ldots \quad (1) \]
\[ \frac{2}{x} = \frac{3}{8} \quad \ldots \quad (2) \]
\[ x = \frac{2 \times 8}{3} = \frac{16}{3} \]
Substituting the value of \( x \) in equation (1)
\[ \frac{x}{y} = \frac{5}{4} \]
We get
\[ y = \frac{x \times 4}{5} \]
\[ y = \frac{16}{3} \times \frac{4}{5} = \frac{64}{15} = 4 \frac{4}{15} \]

7. Find the value of \( x \), when \( 2.5 : 4 = x : 7.5 \).
Solution:

It is given that
\[ 2.5 : 4 :: x : 7.5 \]
We can write it as
\[ 4 \times x = 2.5 \times 7.5 \]
\[ x = \frac{2.5 \times 7.5}{4} \]
Now multiplying by 100
\[ x = \frac{25 \times 75}{4 \times 100} \]
By further calculation
\[ x = \frac{75}{16} = 4 \frac{11}{16} \]

8. Show that 2, 12 and 72 are in continued proportion.
Solution:

Consider \( a, b \) and \( c \) as the three numbers in continued proportion where \( a : b :: b : c \)
So the numbers are 2, 12 and 72
\[ \frac{a}{b} = \frac{2}{12} = \frac{1}{6} \]
\[ \frac{b}{c} = \frac{12}{72} = \frac{1}{6} \]
We get \( a/b = b/c \)

Hence, 2, 12 and 72 are in continued proportion.