

Tutorial



1. Write the missing number in each box.

(a) $8 : 6 = \square : 3$	(b) $4 : 12 = 20 : \square$
(c) $\square : 5 = 24 : 15$	(d) $7 : \square = 21 : 27$
(e) $\square : 36 = 1 : 3$	(f) $15 : 27 = 25 : \square$
(g) $\frac{1}{2} : \frac{1}{3} = 3 : \square$	(h) $0.6 : \frac{5}{8} = 24 : \square$
(i) $3 : 5 : 2 = \square : \square : 6$	(j) $14 : 8 : 18 = \square : 4 : \square$
(k) $12 : \square : \square = 2 : 7 : 5$	(l) $15 : 9 : 36 = \square : 21 : \square$

Answer

Question 1

- a) 4
- b) 60
- c) 8
- d) 9
- e) 12
- f) 45
- g) 2
- h) 25
- i) 9, 15
- j) 7, 9
- k) 42, 30
- l) 35, 84

2. Express each of the following ratios in the simplest form.

(a) 18 : 30	(b) 56 : 16	(c) $\frac{1}{3} : \frac{1}{5}$
(d) $\frac{3}{4} : 1\frac{1}{2}$	(e) 1.4 : 0.4	(f) 1.2 : 6
(g) 50¢ : \$3	(h) 1 m : 15 cm	(i) 200 g : 1 kg
(j) 8 months : 2 years	(k) $\frac{1}{2}$ l : 80 ml	(l) 15 seconds : 1 hour
(m) 54 : 24 : 42	(n) $1\frac{1}{2} : \frac{1}{4} : 2\frac{1}{3}$	(o) 60 cm : 15 cm : 1 m

Answer

Question 2

- a) 3 : 5
- b) 7 : 2
- c) 5 : 3
- d) 1 : 2
- e) 7 : 2
- f) 1 : 5
- g) 1 : 6
- h) 20 : 3
- i) 1 : 5
- j) 1 : 3
- k) 25 : 4
- l) 1 : 240
- m) 9 : 4 : 7
- n) 18 : 3 : 28
- o) 12 : 3 : 20

3. Write the missing number in each box.

<p>(a) $A : B = 2 : 5$ $B : C = 5 : 7$</p> <p>$A : B : C = \square : \square : \square$</p>	<p>(b) $A : B = 3 : 4$ $B : C = 4 : 9$</p> <p>$A : C = \square : \square$</p>
<p>(c) $A : B = 3 : 2$ $A : C = 3 : 8$</p> <p>$B : C = \square : \square$</p>	<p>(d) $A : B = 7 : 6$ $B : C = 3 : 5$</p> <p>$A : C = \square : \square$</p>
<p>(e) $A : B = 10 : 3$ $B : C = 1 : 5$</p> <p>$A : C = \square : \square$</p>	<p>(f) $A : B = 1 : 4$ $B : C = 3 : 2$</p> <p>$A : B : C = \square : \square : \square$</p>
<p>(g) $A : B = 9 : 4$ $B : C = 2 : 3$</p> <p>$A : B : C = \square : \square : \square$</p>	<p>(h) $A : B = 7 : 2$ $B : C = 5 : 1$</p> <p>$A : B : C = \square : \square : \square$</p>

Answer

Question 3

a) 2 : 5 : 7

b) 1 : 3

c) 1 : 4

d) 7 : 10

e) 2 : 3

f) 3 : 12 : 8

g) 9 : 4 : 6

h) 35 : 10 : 2

<p>(i) $A : B = 3 : 1$ $A : C = 9 : 4$</p> <p style="text-align: center;">$A : B : C = \square : \square : \square$</p>	<p>(j) $A : B = 6 : 7$ $B : C = 4 : 5$</p> <p style="text-align: center;">$A : B : C = \square : \square : \square$</p>
<p>(k) If $A : (B + C) = 1 : 9$ and $(A + B) : C = 2 : 3$, then</p> <p style="text-align: center;">(i) $A : B : C = \square : \square : \square$</p> <p style="text-align: center;">(ii) $B : (A + C) = \square : \square$</p>	
<p>(l) If $(A + C) : B = 5 : 1$ and $A : (B + C) = 1 : 3$, then</p> <p style="text-align: center;">(i) $A : B : C = \square : \square : \square$</p> <p style="text-align: center;">(ii) $C : (A + B) = \square : \square$</p>	

Answer

Question 3

i) $9 : 3 : 4$

j) $24 : 28 : 35$

k) (i) $1 : 3 : 8$

(ii) $3 : 7$

l) (i) $3 : 2 : 7$

(ii) $7 : 5$

4. Write the missing ratios.

Statement	Ratios
(a) Ann's mass is $\frac{2}{3}$ of Jane's mass.	(i) <u>Ann's mass</u> : <u>Jane's mass</u> \square : \square (ii) <u>Jane's mass</u> : <u>Ann's mass</u> \square : \square
(b) Jack's height is $\frac{5}{4}$ of Tom's height.	(i) <u>Jack's height</u> : <u>Tom's height</u> \square : \square (ii) <u>Tom's height</u> : <u>Their total height</u> \square : \square
(c) The number of boys is twice the number of girls.	(i) <u>Boys</u> : <u>Girls</u> \square : \square (ii) <u>Boys</u> : <u>Total number of children</u> \square : \square
(d) Marc's marbles is thrice as many as Jim's marbles.	(i) <u>Marc's marbles</u> : <u>Jim's marbles</u> \square : \square (ii) <u>Jim's marbles</u> : <u>Total number of marbles</u> \square : \square
(e) The number of women is half as many as the number of men.	(i) <u>Women</u> : <u>Men</u> \square : \square (ii) <u>Men</u> : <u>Total number of adults</u> \square : \square

5. Write the missing ratios.

<p>(a) $\frac{1}{3}$ of A is equal to $\frac{1}{2}$ of B.</p> <p>(i) $A : B = \square : \square$</p> <p>(ii) $B : A = \square : \square$</p> <p>(iii) $A : (A + B) = \square : \square$</p>	<p>Answer</p> <p>Question 5</p> <p>a) 3 : 2</p> <p>b) 5 : 7</p> <p>c) 6 : 5</p> <p>d) 8 : 21</p>
<p>(b) $\frac{4}{5}$ of P is equal to $\frac{4}{7}$ of Q.</p> <p>(i) $P : Q = \square : \square$</p> <p>(ii) $P : (P + Q) = \square : \square$</p>	
<p>(c) $\frac{1}{3}$ of R is equal to $\frac{2}{5}$ of S.</p> <p>(i) $R : S = \square : \square$</p> <p>(ii) $S : (R + S) = \square : \square$</p>	
<p>(d) $\frac{3}{4}$ of C is equal to $\frac{2}{7}$ of D.</p> <p>(i) $C : D = \square : \square$</p> <p>(ii) $C : (D - C) = \square : \square$</p>	

6. Solve the following word problems.

- (a) Rita had \$360. She donated \$60 to charity and saved the rest. Find the ratio of the amount she saved to the amount she donated to charity.

Ans: _____

- (b) Mr Wong had 420 marbles. He gave 90 marbles to Tim, 150 marbles to Rob and the rest of the marbles to Jack. Find the ratio of Jack's marbles to Rob's marbles to Tim's marbles.

Ans: _____

- (c) Amy's height is $\frac{13}{7}$ of Fiona's height. Find the ratio of Amy's height to their total height.

Ans: _____

- (d) The number of boys is $\frac{2}{5}$ of the number of girls in a Mathematics Club. What fraction of the total number of children are girls?

Ans: _____

- (e) The area of Square X is 3 times the area of Square Y. What fraction of the area of Square X is the area of Square Y?

Ans: _____

Answer

Question 6

a) 5 : 1

b) 6 : 5 : 3

c) 13 : 20

d) $\frac{5}{7}$

e) $\frac{1}{3}$

- (f) Kenneth had 6 times as much money as Bobby. What fraction of the total amount was Kenneth's money?

Ans: _____

- (g) The ratio of Peter's savings to Tom's savings is 3 : 1. The ratio of Tom's savings to Jim's savings is 4 : 5. Find the ratio of Peter's savings to the total savings of the 3 children.

Ans: _____

- (h) The ratio of the number of men to the number of women at a concert is 5 : 3. The ratio of the number of women to the number of children is 2 : 5. Find the ratio of the number of children to the number of adults.

Ans: _____

- (i) The value of R is 5 times of S and S is 3 times of T . Find the ratio of R to T .

Ans: _____

Answer

Question 6

f) $\frac{6}{7}$

g) 4 : 7

h) 15 : 16

i) 15 : 1

- (j) $\frac{2}{3}$ of the number of boys is as many as $\frac{1}{4}$ of the number of girls at a park. Find the ratio of the number of boys to the number of girls at the park.

Ans: _____

- (k) $\frac{3}{7}$ of Ivan's savings is as much as $\frac{2}{5}$ of Paul's savings. Express Ivan's savings as a ratio of Paul's savings.

Ans: _____

- (l) $\frac{4}{5}$ of Anna's mass is twice Betty's mass. What fraction of Anna's mass is Betty's mass?

Ans: _____

- (m) $\frac{6}{5}$ of Valerie's stickers is thrice as many as Zoe's stickers. What fraction of the total number of stickers is Zoe's stickers?

Ans: _____

- (n) Kim has $\frac{4}{3}$ as many stamps as Jane. Rose has 3 times as many stamps as Jane. Find the ratio of the number of Rose's stamps to the total number of stamps the three girls have.

Ans: _____

Answer

Question 6

j) 3 : 8

k) 14 : 15

l) $\frac{2}{5}$

m) $\frac{2}{7}$

n) 9 : 16

7. Solve the following word problems.

- (a) John's height is $\frac{5}{3}$ of Sam's height. If John is 120 cm tall, find their total height.

Ans: _____ cm

- (b) The ratio of Amanda's mass to Derrick's mass is 6 : 5. If Derrick's mass is 40 kg, find Amanda's mass.

Ans: _____ kg

- (c) The ratio of the mass of Pebble A to the mass of Pebble B is 5 : 3. If the mass of Pebble B is 24 g, find the difference in the masses of the pebbles.

Ans: _____ g

- (d) The ratio of the number of black chips to the number of white chips in a box is 8 : 5. If there are 30 more black chips than white chips, find the total number of chips in 3 such boxes.

Ans: _____ chips

- (e) Daniel, Ronald and Jamie shared a bag of marbles in the ratio 5 : 3 : 7. If Jamie received 52 more marbles than Ronald, how many marbles did Daniel and Ronald receive altogether?

Ans: _____ marbles

Answer

Question 7

- a) 192 cm
- b) 48 kg
- c) 16 g
- d) 390
- e) 104

- (f) The sides of a triangle are in the ratio 4 : 5 : 7. If the longest side is 21 cm longer than the shortest side, find the perimeter of the triangle.

Ans: _____ cm

- (g) The ratio of the height of Tower A to the height of Tower B is 3 : 5. If the average height of the towers is 36 m, find the height of Tower A.

Ans: _____ m

- (h) A wire is 72 cm long. It is bent to form a rectangle. The ratio of its length to its breadth is 7 : 5. Find the area of the rectangle.

Ans: _____ cm²

- (i) Anne, Bobby and Charlie shared a sum of money. The ratio of Anne's share to Bobby's share was 6 : 5. The ratio of Anne's share to Charlie's share was 2 : 7. If the total amount shared was \$288, how much was Bobby's share?

Ans: \$ _____

- (j) The ratio of the length of Rope A to the length of Rope B is 3 : 4. The ratio of the length of Rope C to the length of Rope B is 7 : 6. If the length of the longest rope is 84 cm, find the total length of the three ropes.

Ans: _____ cm

Answer

Question 7

- f) 112 cm
g) 27 m
h) 315 cm²
i) \$45
j) 210 cm

8. Solve the following word problems.

- (a) Mrs Wong mixed syrup and water in the ratio 2 : 9 to make a drink. How many litres of drink did she make if she used 3 litres of syrup?

Ans: _____ l

- (b) Lillian mixes flour and sugar in the ratio 8 : 5 to make some biscuits. If she uses 251.2 g of flour, how much sugar does she need?

Ans: _____ g

- (c) Jack mixed some green paint and yellow paint in the ratio 3 : 5 to paint a model aeroplane. If he used 80 ml more yellow paint than green paint, find the amount of yellow paint he used.

Ans: _____ ml

- (d) Mrs Lim mixes 90 g of flour, 60 g of sugar and 50 g of butter to make some cookies. How many grams of sugar does she need to make 1 kg of cookies?

Ans: _____ g

Answer

Question 8

- a) 16.5 l
b) 157 g
c) 200 ml
d) 300 g

- (e) Cindy mixes 30 ml of tomato sauce, 50 ml of olive oil and 5 ml of lemon juice to make some salad dressing. How much lemon juice is needed to make 20 bowls of salad dressing if the capacity of the bowl used is 425 ml?

Answer

Question 8

e) 500 ml

f) 1 : 4

g) 115

h) 900

Ans: _____ ml

- (f) For every 2 people who passed a driving test, there were 6 people who failed. Express the number of people who passed as a ratio of the total number of people who took the driving test.

Ans: _____

- (g) In a factory, there were 8 female workers to every 15 male workers. The factory employed 35 more male workers than female workers. How many workers did the factory employ altogether?

Ans: _____ workers

- (h) A cruise ship can seat 1200 passengers. On one of its trip to Bintan Island, three out of every four seats were occupied. How many seats were occupied?

Ans: _____ seats

9. The ingredients used to make some butter biscuits are given below.

Butter Biscuits
(makes 24 pieces)

180 g	butter
40 g	sugar
125 g	plain flour
35 g	corn flour
3	eggs

Answer

Question 9

a) 450 g

b) 96

c) 25

Q10) 40

To make the biscuits,

- (a) how much butter must be used with 100 g of sugar?
- (b) how many pieces of biscuits can be made with $\frac{1}{2}$ kg of plain flour?
- (c) how many eggs are needed to make 200 pieces of biscuits?

Ans: (a) _____ g

(b) _____ pieces

(c) _____ eggs

10. The ingredients needed to make some cookies are given below. Amelia has $\frac{1}{2}$ kg of flour, 450 g of butter and $\frac{1}{4}$ kg of sugar. How many pieces of cookies can she make at most?

Cookies
(makes 12 pieces)

150 g	flour
90 g	butter
60 g	sugar

Ans: _____ pieces

11. Solve the following word problems.

- (a) Ross had some sweets and lollipops. After he ate $\frac{1}{3}$ of his sweets and $\frac{4}{5}$ of his lollipops, he had an equal number of sweets and lollipops. What is the ratio of the number of sweets to the number of lollipops he had at first?

Ans: _____

- (b) James gave $\frac{3}{7}$ of his stickers to Marc and the rest to Danny and Felix in the ratio 3 : 5. Find the ratio of the number of stickers Marc received to the number of stickers Felix received.

Ans: _____

- (c) The ratio of the number of children to the number of adults at a concert was 4 : 15. The ratio of the number of boys to the number of girls was 2 : 1. Find the ratio of the number of girls to the number of adults.

Ans: _____

- (d) The ratio of Ben's savings to Tom's savings is 3 : 5. Tom gives half his savings to Ben. Find the ratio of Ben's savings to Tom's savings in the end.

Ans: _____

Answer

Question 11

- a) 3 : 10
 b) 6 : 5
 c) 4 : 45
 d) 11 : 5

- (e) The ratio of Rita's sweets to Anna's sweets was $2 : 5$. Rita ate $\frac{2}{3}$ of her sweets. Find the new ratio of Rita's sweets to Anna's sweets.

Answer

Question 11

e) $2 : 15$

f) $2 : 7$

g) $5 : 13$

Ans: _____

- (f) Mrs Tan bought 2 boxes of chocolates. After she transferred $\frac{1}{7}$ of the chocolates from Box B to Box A , the ratio of the number of chocolates in Box A to that in Box B became $1 : 2$. Find the ratio of the number of chocolates in Box A to that in Box B at first.

Ans: _____

- (g) The ratio of the number of fishes in Tank A to the number of fishes in Tank B is $5 : 7$. $\frac{1}{3}$ of the fishes in Tank A are transferred to Tank B . Find the new ratio of the number of fishes in Tank A to that in Tank B .

Ans: _____

- (h) Mrs Tan divided the students who signed up for an art class into 2 equal groups. The ratio of the number of girls to the number of boys in Group A was 3 : 1 and that in Group B was 11 : 9. Find the ratio of the number of girls to the number of boys who signed up for the art class.

Ans: _____

- (i) Amanda made two jugs of lemonade by mixing water and lemon juice. The ratio of the volume of water to the volume of lemon juice in the first jug was 8 : 1 and that of the second jug was 7 : 1. She emptied both jugs of lemonade into a container. Find the new ratio of the volume of water to the volume of lemon juice in the container. (Both jugs used are similar.)

Ans: _____

- (j) The points A , B , C and D lie on a straight line. The ratio of the length of AB to the length of BC is 3 : 4 and the ratio of the length of AC to the length of CD is 2 : 1. Find the ratio of the length of BC to the length of AD .



Ans: _____

Answer

Question 11

h) 13 : 7

i) 127 : 17

j) 8 : 21

12. Each of the following squares is not drawn to scale. Each square is divided into 4 parts, A, B, C and D. The line PQ divides each square into 2 equal parts.

Answer

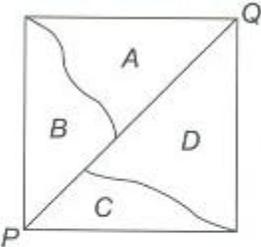
Question 12

a) (i) 3 : 2 : 1

(ii) 3 : 4

b) (i) 2 : 4 : 3

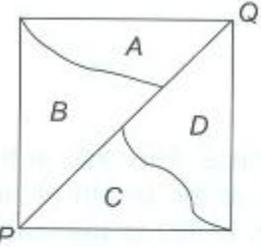
(ii) 1 : 1

(a) 

The ratio of Area A to Area B is 3 : 2.
The ratio of Area B to Area C is 2 : 1.
Find

(i) the ratio of Area A to Area B to Area C,
(ii) the ratio of Area A to Area D.

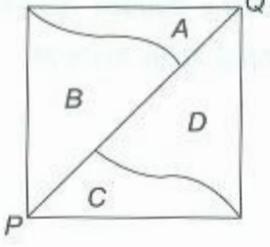
Ans: (a) (i) _____
(ii) _____

(b) 

The ratio of Area A to Area B is 1 : 2.
The ratio of Area B to Area C is 4 : 3.
Find

(i) the ratio of Area A to Area B to Area C,
(ii) the ratio of Area C to Area D.

Ans: (b) (i) _____
(ii) _____

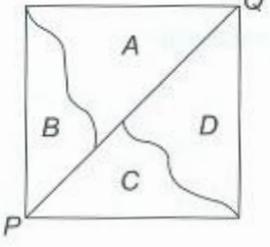
(c) 

The ratio of Area A to Area B is $1 : 3$.
 The ratio of Area B to Area C is $2 : 1$.
 Find

- the ratio of Area A to Area B to Area C ,
- the area of the square given that Area D is 20 cm^2 ,
- the length of one side of the square.

Ans: (c) (i) _____
 (ii) _____ cm^2
 (iii) _____ cm

Answer
 Question 12
 c) (i) $2 : 6 : 3$
 (ii) 64 cm^2
 (iii) 8 cm
 d) (i) $6 : 3 : 4$
 (ii) 36 cm

(d) 

The ratio of Area A to Area B is $2 : 1$.
 The ratio of Area C to Area D is $4 : 5$.
 Find

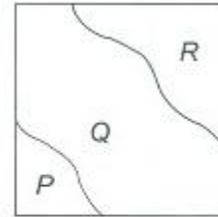
- the ratio of Area A to Area B to Area C ,
- If Area A is 27 cm^2 , find the perimeter of the square.

Ans: (d) (i) _____
 (ii) _____ cm

13. The figure below is not drawn to scale. It shows a square which is divided into 3 parts P , Q and R . Area P is $\frac{1}{6}$ of the area of the square. The ratio of Area Q to Area R is $7 : 3$. Find the ratio of Area P to Area Q to Area R .

Answer

Q13) $2 : 7 : 3$



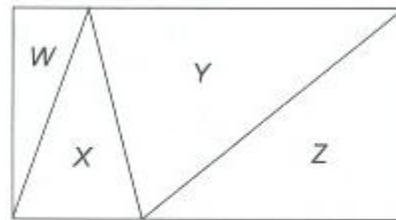
Question 14

a) $6 : 5$

b) 360 cm^2

Ans: _____

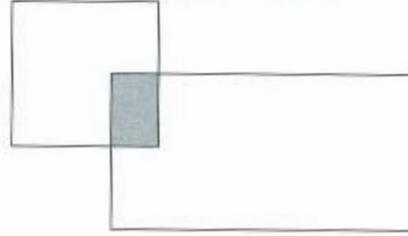
14. The figure below is not drawn to scale. It shows a rectangle which is divided into 4 parts W , X , Y and Z . The ratio of Area W to Area X is $3 : 5$. The ratio of Area X to Area Z is $1 : 2$.
- Find the ratio of Area Y to Area Z .
 - If Area W is 36 cm^2 , find the area of the rectangle.



Ans: (a) _____

(b) _____ cm^2

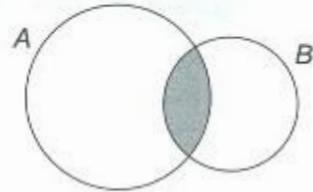
15. The figure below is not drawn to scale. It shows a square and a rectangle overlapping each other. The ratio of the area of the unshaded part of the square to the shaded part of the square is 8 : 3. The ratio of the area of the shaded part of the rectangle to the unshaded part of the rectangle is 1 : 9. Find the ratio of the area of the shaded part to the total area of the figure.



- Answer**
 15) 3 : 38
 16) 1 : 7

Ans: _____

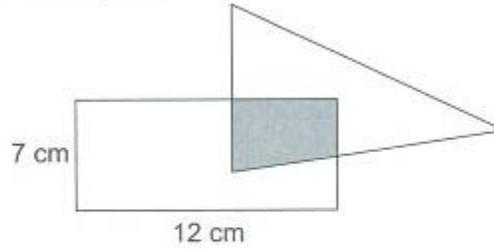
16. The figure below is not drawn to scale. It shows two overlapping circles. $\frac{1}{5}$ of Circle A and $\frac{1}{3}$ of Circle B are shaded. Find the ratio of the area of the shaded part to the total area of the figure.



Ans: _____

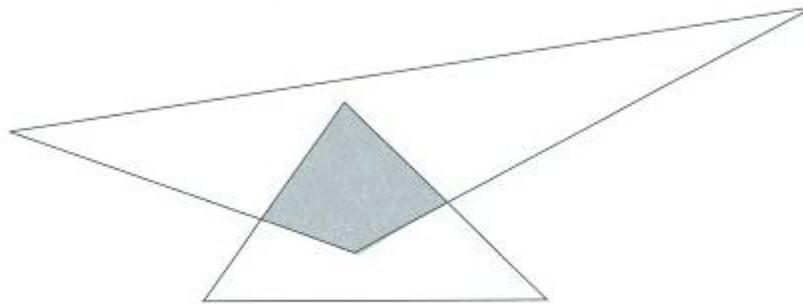
17. The figure below is not drawn to scale. It is made up of a rectangle and a triangle. The length and the breadth of the rectangle are 12 cm and 7 cm respectively. The ratio of the area of the shaded part of the rectangle to the unshaded part of the rectangle is 2 : 5. The ratio of the area of the unshaded part of the triangle to the shaded part of the triangle is 4 : 3. Find the total area of the figure.

- Answer**
 17) 116 cm²
 18) 27.2 mm²



Ans: _____ cm²

18. The figure below is not drawn to scale. It is made up of 2 triangles. The ratio of the area of the small triangle to the area of the big triangle is 8 : 17. The shaded area is $\frac{5}{8}$ of the area of the small triangle. The area of the unshaded part of the figure is 24 mm². Find the area of the big triangle.



Ans: _____ mm²

Solve the following word problems.

19. Anne had 800 red and pink beads. After she used 260 red beads and $\frac{1}{5}$ of the pink beads, the ratio of the number of red beads to the number of pink beads became 1 : 4. How many red beads did Anne have at first?

Answer

19) 350

20) 30

21) 240

Ans: _____ red beads

20. The ratio of the number of adults to the number of children at an exhibition is 5 : 18. The number of boys is 5 times the number of girls. If there are 90 boys, how many adults are there at the exhibition?

Ans: _____ adults

21. $\frac{3}{5}$ of the people at a concert were adults and the rest were children. The ratio of the number of girls to the number of boys was 3 : 5. If there were 180 more adults than girls, how many adults attended the concert?

Ans: _____ adults

22. At a fruit stall, the ratio of the number of oranges to the number of apples was 3 : 5. After 196 apples were sold, the number of oranges was twice the number of apples. How many apples were there at first?

Answer

- 22) 280
23) \$50
24) 200

Ans: _____ apples

23. Amy and Jane shared some money in the ratio 3 : 4. After Jane gave half of her money to Amy, Amy had \$30 more than Jane. How much did Amy have in the end?

Ans: \$ _____

24. The ratio of the number of gold coins to the number of copper coins in a bag was 5 : 4. When 65 more copper coins were put into the bag, the ratio of the number of gold coins to the number of copper coins became 3 : 5. How many coins were there in the bag in the end?

Ans: _____ coins

25. The ratio of the number of cookies Betty had to the number of cookies Tina had was 7 : 4. After Betty ate 22 of her cookies, the ratio became 3 : 8. How many cookies did Betty have at first?

Answer

25) 28

26) 80

27) \$40

Ans: _____ cookies

26. The ratio of the number of stamps Felix had to the number of stamps Jack had was 5 : 9. If Jack gave 32 stamps to Felix, they will have the same number of stamps. How many stamps did Felix have at first?

Ans: _____ stamps

27. Marc and Ryan shared a sum of money in the ratio 2 : 5. After Mr Lim gave \$74 to Marc and \$50 to Ryan, both boys had an equal amount of money. How much did Ryan have at first?

Ans: \$ _____

28. The ratio of Anita's money to Belinda's money was 1 : 6. After Belinda gave away $\frac{1}{3}$ of her money and Anita received \$150 from her father, the new ratio of Anita's money to Belinda's money is 1 : 1. How much did Anita have at first?

Answer

28) \$50

29) \$48

30) 70

Ans: \$_____

29. The ratio of Patsy's savings to Rob's savings was 5 : 4. After Patsy spent \$8 and Rob received \$4, both children had the same amount of money. How much did Rob have at first?

Ans: \$_____

30. Jack, Bob and Carl shared some marbles in the ratio 3 : 2 : 4 respectively. Bob gave $\frac{1}{3}$ of his marbles to Carl. Carl then had 25 more marbles than Jack. How many marbles did Carl have in the end?

Ans: _____ marbles

Solve the following word problems.

31. Andy, Bill and Jim shared some stamps. Andy and Bill together had 3 times as many stamps as Jim. The ratio of the number of stamps Andy had to the number of stamps Bill had was 3 : 2. Andy and Jim had 84 stamps altogether. How many stamps did Andy have?

Answer

31) 54

32) 20

Ans: _____

32. Lisa, Sharon and Mary shared some sweets in the ratio 5 : 3 : 4. Mary kept $\frac{1}{4}$ of her sweets and gave the rest to Lisa and Sharon in the ratio 5 : 1 respectively. Lisa has 52 more sweets than Mary in the end. How many sweets did Mary give to Lisa?

Ans: _____

33. Sandra and Denise had \$486 altogether. The ratio of Sandra's money to Denise's money is 5 : 4. After each of them gave away the same amount of money, the ratio became 5 : 2 respectively. How much money did both girls give away?

Answer

33) \$360

34) \$1.50

Ans: _____

34. The total cost of 20 plastic and paper files is \$78. $\frac{4}{5}$ of the files are plastic files and the remaining are paper files. The ratio of the cost of each plastic file to each paper file is 3 : 1. Find the price of each paper file.

Ans: _____

35. Jack, Paul and Sam had the same number of marbles at first. After a game, Jack lost 9 marbles to Sam and Paul lost 17 marbles to Sam. The ratio of Jack's marbles to Paul's marbles became 7 : 3. How many marbles did each boy have at first?

Answer

35) 23

36) 115

Ans: _____

36. Cindy had some blue and green beads. The ratio of the number of blue beads to the number of green beads was 2 : 5. Tina had only blue beads. The ratio of Tina's beads to Cindy's beads was 3 : 1. Tina had 95 more blue beads than Cindy. How many blue beads did both girls have altogether?

Ans: _____

37. 10 years ago, the ratio of Ben's age to John's age was 2 : 5. The difference in their ages is 6 years.

- (a) How old is Ben now?
(b) Find the ratio of John's age to Ben's age in 4 years' time.

Answer

Q37

- a) 14 years old
b) 4 : 3

Q38

- a) 129 boys
b) 12 girls

Ans: (a) _____

(b) _____

38. There were 600 boys and girls in a hall. The ratio of the number of boys to the number of girls was 8 : 17. After 72 boys left the hall and some girls entered the hall, $\frac{7}{9}$ of the children in the hall were girls.

- (a) How many boys were there in the end?
(b) How many girls entered the hall?

Ans: (a) _____

(b) _____