RATIOS – PRACTICE QUESTIONS

1.
Aaron and Brian shared £201 in the ratio 1:2.
How much did each person receive?

2.
Charlie and Daryl shared £511 in the ratio 4:3.
How much did each person receive?

3.
Erin and Frank shared £954 in the ratio 2:7.
How much more did Frank receive than Erin?

4.
Gloria, Harriet and India shared 45 Maltesers in the ratio 3:4:2.
How many Maltesers did each person receive?

5.
Jane, Kevin and Lucas shared £1440 in the ratio 1:3:2.
How much did each person receive?

6.
Martin, Neil and Olivia shared £264 in the ratio 2:5:1.
How much more did Neil receive than Martin?

7.
The ratio of boys to girls in a school is 4:3.
If there are 519 girls in the school, how many boys are at the school?

8.
The ratio of cows to sheep on a farm is 5:2.
If there are 90 sheep on the farm, how many cows are there?

9.
The ratio of glass cups to plastic cups in a house is 4:7.
If there are 48 glass cups in the house, how many cups are there in the house in total?

10.
The ratio of people wearing glasses to people not wearing glasses in a cinema is 1:7.
If there are 84 people not wearing glasses, how many people are in the cinema in total?

11.
The ratio of red balloons to blue balloons to yellow balloons at a party is 5:3:1.
If there are 55 red balloons, how many blue balloons are there at the party?

12.
The ratio of sandwiches to baguettes to rolls on sale at a shop is 4:3:1.
If there are 88 sandwiches on sale, how many more baguettes are there on sale than rolls?

13.
The ratio of English people to Welsh people to Scottish people in a village is 9:1:2.
If there are 800 Scottish people in the village, how many more English people are there than Welsh people?

14.
There are tomato plants, pepper plants and garlic plants in a greenhouse.
The ratio of tomato plants to pepper plants to garlic plants in a greenhouse is 6:4:5.
If there are 78 tomato plants, how many plants are there in the greenhouse in total?

15.
A business spends money on wages and advertising in the ratio 3:1.
Last month, the business spent £20,000 more on wages than on advertising.
How much did the business spend on wages last month?

16.
A street contains houses and flats in the ratio 7:2.
The street has 60 more houses than flats.
How many houses are there on the street?

17.
A company owns desktops and laptops in the ratio 5:2.
The company owns 45 more desktops than laptops.
How many laptops does the company own?

18.
An aviary contains budgies and cockatiels in the ratio 9:2.
There are 56 more budgies than cockatiels.
How many birds are in the aviary in total?

19.
Lorries, vans and cars used a road yesterday in the ratio 4:1:12.
36 more lorries used the road than vans.
How many cars used the road yesterday?

20.
An animal shelter has cats, dogs and rabbits.
The ratio of cats to dogs to rabbits is 3:5:1.
There are 32 more dogs than there are rabbits.
How many animals are at the shelter in total?

21.
The ratio of custard creams to digestives to rich tea biscuits in a biscuit tin is 3:5:4.
There are 22 more digestives in the tin than there are custard creams.
How many biscuits are in the tin altogether?

22.
A youth club has members aged 10, 11, 12 and 13 in the ratio 2:3:4:6.
There are 28 more 12-year-olds than 10-year-olds at the youth club.
How many more 13-year-olds are there at the youth club than 11-year-olds?

23.
There are 44 lions and 24 tigers at a zoo.
Write down the ratio of lions to tigers, in its simplest form.

24.
Yesterday, 700 small letters and 200 large letters were posted at the post office.
Write down the ratio of small letters to large letters posted, in its simplest form.

25.
A group of people were asked whether they preferred rugby or football.
80 people said rugby and 200 people said football.
Write down the ratio of people who said rugby to people who said football, in its simplest form.

26.
Last week, a café sold 150 hot chocolates, 450 coffees and 400 teas.
Write down the ratio of hot chocolates sold to coffees sold to teas sold, in its simplest form.

27.
In Bristol, there are 180,000 red squirrels, 240,000 grey squirrels and 60,000 black squirrels.
Write down the ratio of red squirrels to grey squirrels to black squirrels, in its simplest form.

28.
Andrea's daughter was born at a weight of 2.5 kilograms.
Andrea's son was born at a weight of 5 kilograms.
Write down the ratio of Andrea's daughter's birth weight to her son's birth weight, in its simplest form.

29.
Liverpool score 1.8 goals per game.
Burnley score 0.6 goals per game.
Write down the ratio of Liverpool's goals per game to Burnley's goals per game, in its simplest form.

30.
Christine has £1.40 in her purse.
Connie has £4.90 in her purse.
Write down the ratio of the money Christine has in her purse to the money Connie has in her purse, in its simplest form.

31.
Susan made fruit punch out of lemonade, grape juice and pineapple juice.
She used 2 litres of lemonade, 500 millilitres of grape juice and 250 millilitres of pineapple juice.
Write down the ratio of lemonade to grape juice to pineapple juice, in its simplest form.

32.
A tub of ice cream from Lidl costs 96p.
A tub of ice cream from Tesco costs £1.20.
A tub of ice cream from Waitrose costs £1.68.
Write down the ratio of the cost in Lidl to Tesco to Waitrose, in its simplest form.

33.
A pack of sweets contains yellow, red and purple coloured sweets.
The ratio of yellow sweets to red sweets to purple sweets in a pack of sweets is 2:6:5.
28 of the sweets are not red.
How many red sweets are in the packet?

34.
A triangle has angles in the ratio 3:4:5.
Find the size of each angle.

35.
At a school, the ratio of girls to boys is 3:2.
Of the girls, the ratio of girls who have packed lunches to girls who have school dinners is 1:2.
What fraction of the pupils at the school are girls who have packed lunches?

36.
At a pet shop, the ratio of cats to dogs is 1:8 and the ratio of rabbits to cats is 1:5.
Given that there are 3 rabbits, how many dogs are there?

37.
At a school, the ratio of pupils to teachers is 20:1 and the ratio of teachers to classrooms is 5:4.
Given that there are 20 classrooms, how many pupils are there?

38.
Bradley and Angelina shared £144 in the ratio 5:3.
Bradley then gave £10 of his share to Angelina.
Work out the ratio of the money Bradley now has to the money Angelina now has, in its simplest form.

39.
In Jamie's wardrobe, he has hoodies, jumpers and t-shirts in the ratio 3:2:7.
The t-shirts are either white or black.
The ratio of white t-shirts to black t-shirts is 4:3.
Given that Jamie has 12 white t-shirts, how many jumpers does he have?

40.
Tony and Wayne shared £210 in the ratio 3:x.
Tony received £126.
Find x.

41.
In an orchard of 160 trees, the ratio of apple trees to pear trees is 5:3.
20 apple trees and 30 pear trees are then planted.
After the new trees are planted, what is the ratio of apple trees to pear trees?
Give your answer in its simplest form.

42.
The ratio of boys to girls at a school is 3:4.
The boys wear shorts and trousers in the ratio 2:5.
The girls wear skirts and trousers in the ratio 7:3.
There are 60 boys who wear shorts.
How many students in total wear trousers?

43.
A quadrilateral has angles in the ratio 5:2:5:6.
Find the difference in degrees between the largest angle and the smallest angle.

44.
At a company, the ratio of men to women is 7:9.
The ratio of women who work part-time to women who work full-time is 3:5.
The company has 16 more women than men.
How many women work part-time?

45.
A bag contains between 100 and 120 marbles.
The ratio of red marbles to green marbles to blue marbles in the bag is 5:6:7.
How many marbles are in the bag?

46.
Ryan and Sammy both have bags of £1 and £2 coins.
Ryan's bag contains 24 coins and the ratio of £1 coins to £2 coins is 1:3.
Sammy's bag contains 44 coins and the ratio of £1 coins to £2 coins is 7:4.
Work out the ratio of the total value of Ryan's bag to Sammy's bag, in its simplest form.

47.
A shop has blazers and jumpers in stock in the ratio 2:5.
The jumpers are large, medium and small in the ratio 3:1:6.
There are 24 more large jumpers than there are medium jumpers.
How many blazers does the shop have in stock?

48.
A group of people were asked if they prefer desserts or savouries.
The ratio of adults to children in the group was 5:2.
The ratio of adults who said they preferred desserts to savouries was 1:3.
The ratio of children who said they preferred desserts to savouries was 5:3.
There were 40 children in the group.
Work out the overall ratio of people who said they preferred desserts to savouries, in its simplest form.

49.
A café sells croissants and brioches in two types – butter and chocolate.
The ratio of croissants to brioches is 3:4.
The ratio of butter croissants to chocolate croissants is 2:1.
The ratio of butter brioches to chocolate brioches is 3:5.
There are 24 butter brioches.
Work out the ratio of butter desserts to chocolate desserts. Give your answer in its simplest form.