

Quick Test - Harder ratio problems



1. In a clothing shop the ratio of hats to ties is 4:3. The ratio of gloves to hats is 9:1. Find the ratio of ties to gloves. Give your answer in its simplest form.

2. Alan, Ben and Dora share some marbles.

The amount of marbles Alan gets, to the amount of marbles Ben gets, is in the ratio 7:3.

The amount Alan gets, to the amount Dora gets, is in the ratio 3:5.

Given Dora gets 28 more marbles than Alan.

Work out how many marbles Ben gets.

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3. There are red marbles, blue marbles and green marbles in a bag.
The ratio of red marbles to marbles that are not red is 3:7
The ratio of green marbles to marbles that are not green is 7:18
Work out the ratio of red marbles to blue marbles to green marbles.
Give your answer in its simplest form.

4. The points A, B, C and D lie in order on a straight line.
 $AB:BD=1:3$ and $AC:CD=7:8$.
Find $AB:BC:CD$

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5. A cricket team plays some games in a season. Each game was a win, draw or a loss.
The ratio of games they won to the games they did not win is 3 : 5
The ratio of games they lost to games they did not lose was 1 : 6

Given that the team played less than 50 games, work out the highest number of games they could have won. (4 marks)

6. A and B are in the ratio 3 : 4
C and D are in the ratio 2 : 5

Given: $A + B = 3(C + D)$

Find A : B : C : D

(4 marks)

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7. Josh and Carys won some money in their local lottery. They share the money in the ratio 3:4. Carys decides to give £40 to charity. The amount that Josh and Carys have is now in the ratio 6:7.

Calculate the total amount of money won by Josh and Carys.

8. Nate is saving for a new bike which will cost £480. Nate earns £1500 per month. Nate spends his money on bills, food and extras in the ratio 8:3:4. Of the money he spends on extras, he spends 80% and puts 20% into his savings account.

How long will it take Nate to save for his new bike?