Combining Ratios

Name .....

1 Given that a:b = 4:7 and b:c = 3:2

Find the ratio a:b:c

Give your answer in its simplest form.

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(2 marks)

2 Given that a:b = 2:5 and b:c = 4:3

Find the ratio a:b:c

Give your answer in its simplest form.

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(2 marks)

3 Given that a:b = 3:8 and a:c = 5:7

Find the ratio a:b:c

Give your answer in its simplest form.

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(2 marks)

4 Given that a:b = 4:9 and a:c = 6:7

Find the ratio a:b:c

Give your answer in its simplest form.

.....

(2 marks)

5 Alan, Belle and Carla share £124.

The amount Alan and Belle get is in the ratio 7:3

The amount Belle and Carla get is in the ratio 5:4

How much does Alan get?

£ .....

(3 marks)

6 There are red sweets, blue sweets and yellow sweets in a bag.

The ratio of red sweets to sweets that are not red is 2:5

The ratio of yellow sweets to sweets that are not yellow is 3:7

Work out the ratio of red sweets to blue sweets to yellow sweets.

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(3 marks)

7 Della, Ella and Felix share some sweets.

The amount of sweets Della gets to the amount of sweets Ella gets is in the ratio 5:3

The amount Della gets to the amount Felix gets is in the ratio 4:5

Given Felix gets 30 more sweets than Della.

Work out how many sweets Ella gets

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(3 marks)

8 The points A, B, C and D lie in order on a straight line.

AB:BD = 3:4 and AC:CD = 5:6

Find AB:BC:CD

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(3 marks)

9 The points A, B, C and D lie in order on a straight line.

AB:BD = 5:8 and AC:CD = 9:2

Find AB:BC:CD

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(3 marks)

10 The ratio of red cars to black cars is 3:7

The ratio of black cars to white cars is 5:4

Show that less than 50% of the cars are black.

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(3 marks)

11 A and B are in the ratio 6:1

C and D are in the ratio 2:5

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

Find A:B:C:D

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(3 marks)

12 A and B are in the ratio 3:2

C and D are in the ratio 4:5

Given: 2(A + B) = C + D

Find A:B:C:D

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(3 marks)

13 There is a quadrilateral, ABCD

The ratio of the size of angle A to angle B is 4:5

The ratio of the size of angle B to angle D is 15:21

The ratio of the size of angle C to angle A is 2:1

Find the difference in size between the two smallest angles in quadrilateral ABCD.

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(3 marks)

14 Angie and Brenda share some money in the ratio 5:8

Colin and Davina share the same amount of money as Angie and Brenda.
They share their money in the ratio 3:7.

Find A:B:C:D

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(3 marks)