3.4 Writing and Simplifying Ratio: 30-minute Pack

EDEXCEL 1MA1 · Calculator allowed · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Priya and Noah share 35 stickers in the ratio 3:4. How many stickers does Priya receive?

(Total for Question 1 is 2 marks)

---

2 Write the ratio 2:81 in the form 1:n.

(Total for Question 2 is 2 marks)

---

3 Write the ratio 185 minutes to 2.25 hours in its simplest form.

(Total for Question 3 is 3 marks)

---

4 In a school council there are 27 girls and 23 boys.
Write the ratio of girls to all the members in its simplest form.

(Total for Question 4 is 2 marks)

© Revision Library | revisionlibrary.co.uk

5 Write the ratio 101:4 in the form n:1.

(Total for Question 5 is 2 marks)

---

6 Write the ratio 9:36:27 in its simplest form.

(Total for Question 6 is 2 marks)

---

7 Write the ratio 30:6:24 in its simplest form.

(Total for Question 7 is 2 marks)

---

8 Red paint and blue paint are mixed in the ratio 3:5. A painter needs 32 litres of the mix. Work out how many litres of red paint and how many litres of blue paint are needed.

(Total for Question 8 is 4 marks)

---

9 A box contains red, green and blue counters in the ratio 2:3:5. There are 10 counters in total. Two counters are taken at random without replacement. Calculate the probability that both counters are blue. Give your answer as a fraction in simplest form.

(Total for Question 9 is 4 marks)

© Revision Library | revisionlibrary.co.uk

Mark scheme · 3.4 Writing and Simplifying Ratio: 30-minute Pack

Question 1

find one part: 35/7 = 5 or equivalent	**M1**
15 cao	**A1**

Answer: 15

Question 2

divides by 2	**M1**
1:40.5 cao	**A1**

Answer: 1:40.5

Question 3

converts to the same units	**M1**
185:135	**M1**
37:27 cao	**A1**

Answer: 37:27

Question 4

27:50 identified	**M1**
27:50 cao	**A1**

Answer: 27:50

Question 5

divides by 4	**M1**
25.25:1 cao	**A1**

Answer: 25.25:1

Question 6

divides all three terms by a common factor (9)	**M1**
1:4:3	**A1**

Answer: 1:4:3

Question 7

divides all three terms by a common factor (6)	**M1**
5:1:4	**A1**

Answer: 5:1:4

Question 8

find one part: 32/(3+5) = 32/8 = 4 or equivalent	**M1**
red = 3 x 4 = 12 litres cao	**A1**
use same one part for blue	**M1**
blue = 5 x 4 = 20 litres cao	**A1**

Answer: red 12 litres, blue 20 litres

Question 9

use ratio to find total parts = 2 + 3 + 5 = 10, so probability first is blue = 5/10	**M1**
compute probability second is blue after one blue removed = 4/9 and multiply probabilities (5/10)*(4/9)	**M1**
simplify product: (5/10)*(4/9) -> (1/2)*(4/9) = 4/18	**M1**
2/9 cao	**A1**

Answer: 2/9

© Revision Library | revisionlibrary.co.uk