Test - Ratio and proportion

Year: Year 7 · Duration: 45 minutes · /20

Name:	Date:	**Mark:** /20

Question	1	2	3	4	5	Total
marks	4	4	4	4	4	**20**
Mark						

Show your working.

Question 1 (4 marks)

Question 1 – Ratio skills

(a) Simplify the ratio 24 : 36. (1 mark)
(b) Share £84 in the ratio 3 : 4. (2 marks)
(c) Write the ratio 500 g to 2 kg in its simplest form. (1 mark)

Question 2 (4 marks)

Question 2 – Proportion

(a) 6 bottles of water cost £4.50. How much do 10 bottles cost? (2 marks)
(b) A recipe for 4 people needs 300 g of pasta. How much pasta is needed for 7 people? (2 marks)

Question 3 (4 marks)

Question 3 – Best buy

A 400 g jar of coffee costs £4.80. A 750 g jar costs £8.25.

a. Work out the cost per 100 g for each jar. (2 marks)
b. Which is better value? (1 mark)
c. How much would you save buying 1 500 g in the better-value jars compared with the other size? (1 mark)

Question 4 (4 marks)

Question 4 – Problem: the school garden

The Year 7 garden club mixes compost, sand and soil in the ratio 4 : 1 : 5 for a new flower bed. They need 80 kg of the mixture.

a. How much compost, sand and soil do they need? (2 marks)
b. Compost costs £0.30 per kg, sand £0.20 per kg and soil £0.10 per kg. Work out

the total cost. (2 marks)

Question 5 (4 marks)

Question 5 – Problem: the map

On a map with scale 1 : 25 000, the distance between a campsite and a lake is 8 cm.

a. Work out the real distance in kilometres. (2 marks)
b. Dan walks at 4 km/h. How long does he take to walk from the campsite to the lake? Give your answer in minutes. (2 marks)