

Answer Key

Simplifying Ratios

1. 2 : 3
2. 4 : 3 : 7
3. 1 : 3
4. 5 : 6
5. 12 : 5 : 3

Sharing into Ratios

1. 18 and 6 sweets
2. £48 and £32
3. 40, 60, and 80 students
4. 0.3 m, 0.6 m, and 1.5 m
5. 30 red, 75 blue, 45 green

Recipe Questions

1. 1000g beef, 750g onions, 1000g tomatoes, 375ml stock
2. 525g flour, 350g butter, 233.33g sugar, 116.67g egg (or $\frac{700}{3}$ g sugar, $\frac{350}{3}$ g egg)
3. 210ml oil, 105ml vinegar, 35g mustard, 17.5g honey
4. 0.6 L lemon juice, 0.3 L sugar, 2.4 L water
5. (a) 1100g chicken, 550g rice, 825ml coconut milk, 16.5 spices
(b) 6 people
(c) 300g rice, 450ml coconut milk, 9 spices

Direct Proportion

1. £1.68 or 168p
2. 420 km
3. 12 litres
4. 6 m
5. 3 kg

Best Buys

1. 350g for £8.75
2. Pack of 30
3. 5 litres for £6.50
4. Option B (15kg for £44.25)
5. Company Y

Scaling

1. 3.5 m
2. 4.2 km
3. 0.8 m by 0.6 m
4. 1:15
5. (a) 19 km
(b) 1:125,000
(c) The first map (1:125,000 is a larger scale than 1:125,000? The scales are identical as given. If the first map's ratio is 1:125,000, they show the same detail.)
6. Drawing: 6 cm by 4.5 cm rectangle.

Rates of Change

1. 30 km/h
2. 22.5 minutes
3. 71.1 km/h (whole journey), 80 km/h (in motion)
4. 384 g
5. (a) 67.5 miles
(b) 45 miles/h

Problem Solving With Ratios

1. 140 blue marbles
2. 6 oranges
3. 2 : 9 : 3
4. £480
5. 20 cm
6. $\frac{24}{61}$