## Ratios: The Maths of Baking

NAME:

CLASS:

DATE:

## Basic

1) In a large fish tank there are 13 goldfish and 17 tropical fish. Write down the ratio of:
a) goldfish to tropical fish
b) tropical fish to goldfish
2) In a garden there are 11 rosebushes and 5 apple trees. What is the ratio of:
a) rose bushes to apple trees?
b) apple trees to rosebushes?
3) Write each pair of ratios in its simplest form:
a) $12: 10$
b) $2: 20$
c) $20: 25$
d) $21: 18$
e) $25: 50$
f) $13: 39$
4) The speed limit on a motorway in the UK is 70 mph . In towns and populated areas it is 30 mph . Express the ratio of motorway speed to populated areas in its simplest form.
5) On a school trip, there are 27 students and 3 teachers. Write, in its simplest form, the ratio of:
a) students to teachers
b) teachers to students

## Ratios: The Maths of Baking

NAME:

CLASS:

DATE:

## Core

1) Write each pair of numbers as a ratio in its simplest form:
a) $8: 10$
b) $14: 35$
c) $3: 3$
d) $24: 6$
e) 11:66
f) $3: 300$
g) $36: 24$
h) $44: 33$
2) Express each of the following as a unitary ratio (1:n):
a) $5: 3$
b) $2: 11$
c) $4: 3$
d) $5: 27$
3) The ratio of staff to students at Grange Academy is $1: 17.5$
a) How many students would you expect if there are 42 staff?
b) Approximately how many staff would be needed for 1000 students?
4) In one month a garage sells 72 cars. The ratio of new cars to used cars is $3: 5$. How many of each are sold?
5) Share:
a) $£ 12$ in the ratio $3: 1$
b) 60 kg in the ratio $2: 3$

## Ratios: The Maths of Baking

NAME:

CLASS:

DATE:

## Advanced

1) Simplify the following ratios:
a) $100 \mathrm{~m}: 1 \mathrm{~km}$
b) 1 tonne: 10 kg
c) 6 hours: 1 day
2) The ratio of the lengths of the three sides of a right-angled triangle is $5: 12: 13$. The perimeter of the triangle is 300 cm . Calculate the lengths of the sides.
3) Jennifer has to cook 240 g of rice to give two portions. What weight of rice should she use for five portions?
4) The following recipe makes six scones:

110 g self-raising flour
20 g butter
750 ml milk
1 tablespoon caster sugar

How much of each ingredient is needed to make 15 scones?

Ratios: The Maths of Baking

## ANSWERS

## Basic

1) a) $13: 17$
b) $\mathbf{1 7 : 1 3}$
2) a) $11: 5$
b) $5: 11$
3) a) $6: 5$
b) $1: 10$
c) $4: 5$
d) $7: 6$
e) $1: 2$
f) $1: 3$
4) $7: 3$
5) a) $9: 1$
b) $1: 9$

## Core

1) a) $4: 5$
b) $\mathbf{2 : 5}$
c) $1: 1$
d) $4: 1$
e) $1: 6$
f) $1: 100$
g) $3: 2$
h) $4: 3$
2) a) $1: 0.6$
b) $1: 5.5$
c) $1: 0.75$
d) $1: 5.4$
3) a) 735
b) 57
4) New cars $=27$
Used cars = 45
5) a) $£ 9: £ 3$
b) $\mathbf{2 4 k g}: 36 \mathrm{~kg}$

Advanced

1) a) $1: 10$
b) $\mathbf{1 0 0 : 1}$
c) $1: 4$
2) $50 \mathrm{~cm}, 120 \mathrm{~cm}, 130 \mathrm{~cm}$
3) 600 g
4) Flour $\mathbf{2 7 5 g}$; butter 50 g ; milk 1875 ml ; sugar 2.5 tablespoons
