Name _____

Practice Questions – Level 1 Ratio and Proportion

1. The label on a large bottle of juice states 'dilute 1 part juice to 3 parts water'. How much water must be added to 2 litres of juice?

A 0.5 litres
B 1.5 litres
C 6 litres
D 8 litres

2.

This recipe is for 4 fruit scones.

200g flour
2 eggs
100ml milk
50g currants

How much flour would be needed to make 6 of these fruit scones?

A 30g
B 300g
C 400g
D 1 200g

3. A stall holder is making muffins to sell at a village fair.
His recipe makes 12 muffins.

300g flour
1 level teaspoon baking powder
90g sugar
250ml milk
2 eggs
4 tablespoons sunflower oil

How much flour does he need to make 60 muffins?

A 150g
B 1500g
C 1800g
D 18 000g

4. Due to falling profit, 600 shop workers lose their jobs. 480 of these are women. What is the ratio of men to women who lose their jobs?

A 1 : 5
B 1 : 4
C 4 : 1
D 5 : 1

Name _____

5. A pool attendant adds chemicals to the pool each day.
He mixes chemicals labelled 'Fresh' and 'Safe' in a ratio of 3 : 2.

How much 'fresh' is there in one litre of mixture?

A 2/5 litre
B 3/5 litre
C 5/3 litre
D 3/2 litre

6. A man lives 1 km from a shop. It takes him 15 minutes to walk to the shop.
His walking speed is

A 4 metres per minute
B 4 kilometres per minute
C 4 metres per hour
D 4 kilometres per hour

7. Jane and Tom spend £5 between them on their lottery tickets each week.
Jane puts in £1 and Tom puts in £4. They have agreed to share the winnings according to the amount they put in.

One week they win £45 000. How much will they get each?

A Jane will get £15 000 and Tom will get £30 000
B Jane will get £11 000 and Tom will get £34 000
C Jane will get £10 000 and Tom will get £35 000
D Jane will get £9 000 and Tom will get £36 000

8. Lee has a recipe for fruit punch which makes 15 glasses
Lee decides to make just enough fruit punch for 75 glasses.

FRUIT PUNCH
500ml orange juice
500ml pineapple juice
50ml lemon juice
1l sparkling water

How many millilitres (ml) of lemon juice will he need?

A 50ml
B 75ml
C 250ml
D 500ml

9. The British Heart Foundation recommends that children between the ages of 5 to 18 should spend at least an hour a day doing something active. Yet their research shows that one in three do not get nearly enough exercise.
As a ratio is this:

A 1:3
B 1:2
C 1:4
D 1:1

Name _____

Questions 10 to 11 are about a nursery school.
The school decides to take 20 children on a trip to the zoo.

10. For safety, the ratio of adults to children must be at least 1 : 4.
How many adults are required for safety?

A 1
B 4
C 5
D 6

11. The entire group (adults & children) goes to the zoo in cars. Each car is driven by an extra volunteer and can hold 4 passengers.
How many cars would they need altogether?

A 5
B 6
C 7
D 10

12. Try converting a home-size recipe into restaurant size!
If a home-size recipe uses three-quarters of a teaspoon of a spice how many teaspoons of the spice would be needed for 10 times the quantity?

A 8 teaspoons
B 6.5 teaspoons
C 5 teaspoons
D 7.5 teaspoons

Answers

1	2	3	4	5	6	
7	8	9	10	11	12	Total

Tutor Comments

Answers and Teaching Notes

Copyright

Adult Numeracy curriculum (2009 version)

N1/L1.7 Work out simple ratio and direct proportion
(a) understand simple ratio as the number of parts i.e. three parts to one part
(b) understand direct proportion as the same rate of increase or decrease, e.g. double, half
(c) understand the relationship between simple ratio and fractions

If using as practice for the multiple choice adult numeracy exam (which has 40 questions in 75 minutes) allow a time of about 20 minutes. Calculators are not permitted but bilingual dictionaries may be used.

Functional Mathematics (FM)

These questions also comply with the coverage and range statements for Level 1 Functional Mathematics BUT teachers **must also consider** the related process and performance skills. Questions could be used for group practice and discussion (or work in pairs). The emphasis should not be on 'just getting the right answer' but on students deciding what to do and explaining (verbally and diagrammatically) how they worked out and checked their answers. Students could also be asked to write their own problems (then swap with a partner) modelled on these examples or apply them to their own areas of interest e.g. mixing cement, plant fertilizer, paint, etc.

Please download our special L1-2 Functional Maths Information sheet for more help with this http://www.skillsworkshop.org/gennum/l1l2functionalmathshelp.pdf

FM Maths Coverage and Range Statement (L1)

Solve simple problems involving ratio, where one number is a multiple of the other

- Understand simple ratio as the number of parts, for example three parts to one part. A drink is made from juice and water in the ratio of 1:5. How many litres of drink can I make from 2 litres of juice?
- Understand direct proportion as the same rate of increase or decrease, for example double, half, scale up amounts of food for three times the number of people, put items in piles with twice as many items in one pile as in the other.

To obtain an editable Word version of this resource (so, for example, you could remove the multiple choice answers and use as a straight problem solving sheet) simply send a resource you would like to share to maggie@skillsworkshop.org

THANK YOU

Level 1 Ratio questions

1	–	C (6 litres)	7	–	D (Jane £9 000, Tom £36 000)
2	–	B (300g)	8	–	C (250ml)
3	–	B (1500g)	9	–	B (1:2)
4	–	B (1:4)	10	–	C (5 adults)
5	–	B (3/5 litre)	11	–	C (7 cars)
6	–	D (4 kilometres per hour)	12	–	D (7.5 teaspoons)