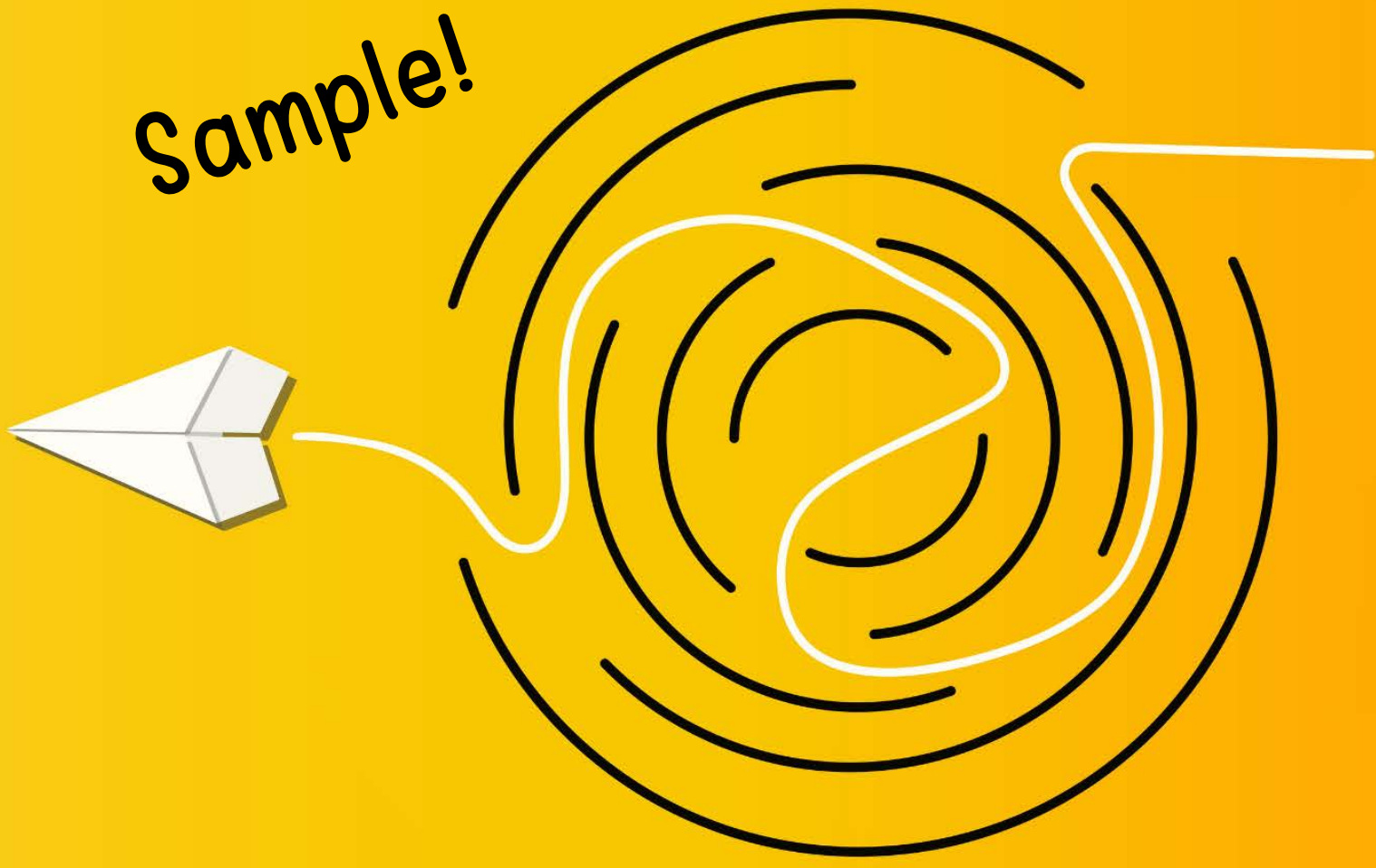
Level 2

Quantitative Problem Solving

Student Worksheets

Sample!



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Contents

1. Write the number words:

1 one _____

2 two _____

3 three _____

4 four _____

5 five _____

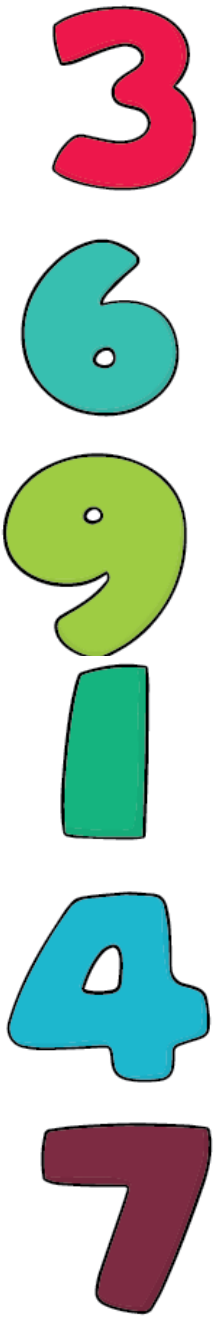
6 six _____

7 seven _____

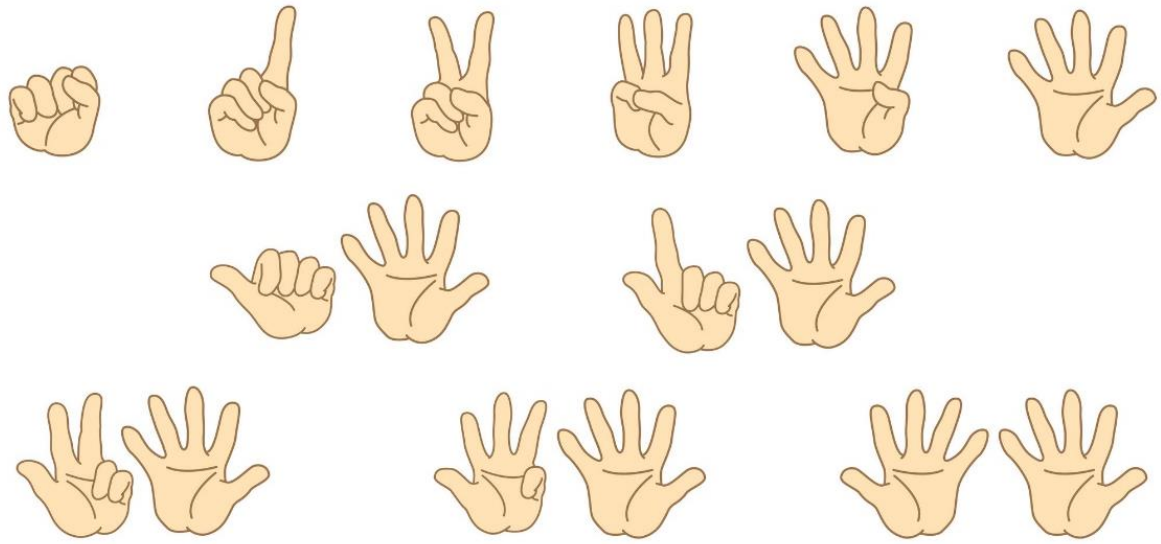
8 eight _____

9 nine _____

10 ten _____



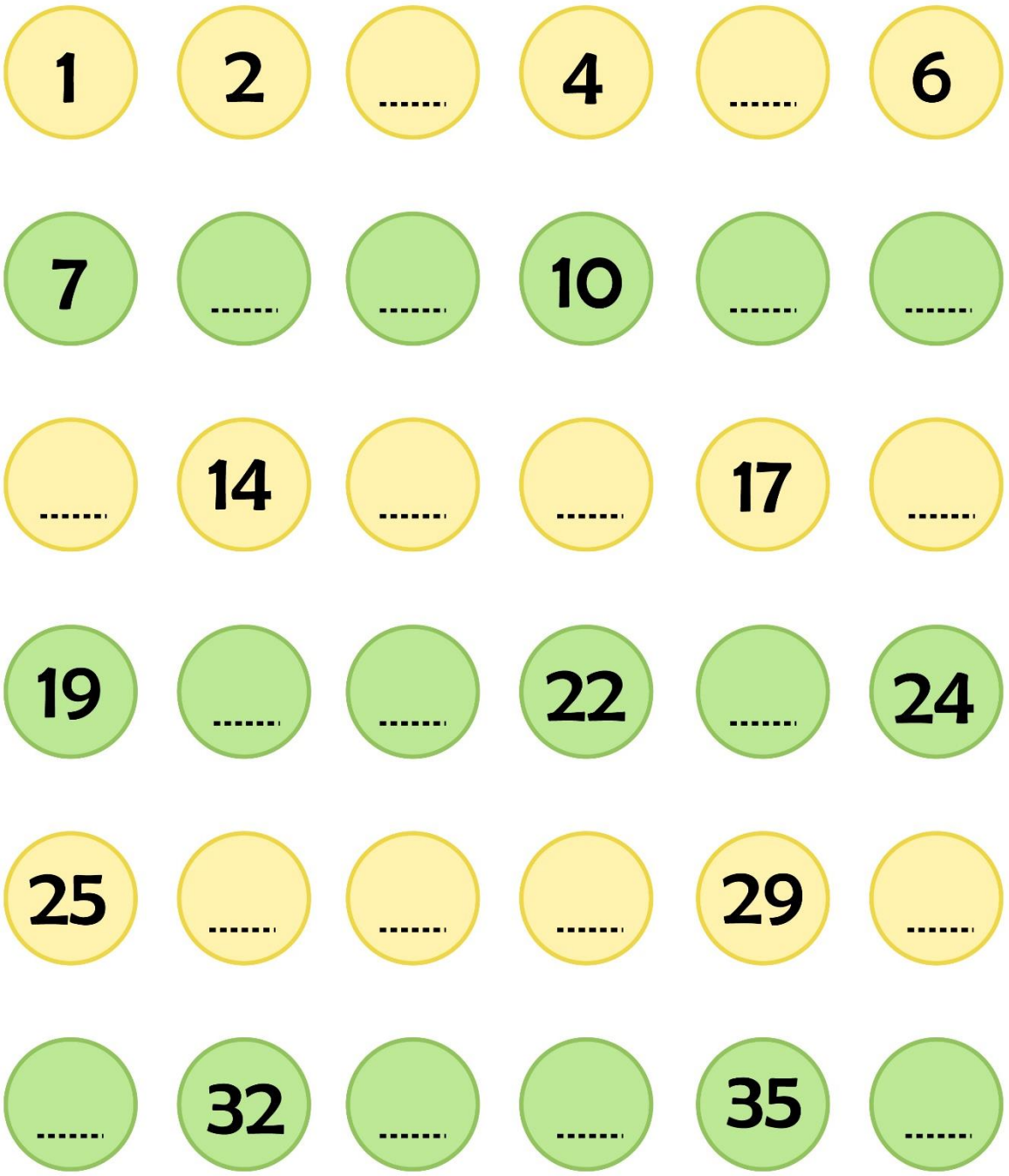
3. You can use your fingers to count. Write the numbers shown:



4. How many fingers do these images show?

SAMPLE

5. Write the missing numbers.



A. The Basic Operations

1. Read and talk about the words:

Addition

Example: 4 + 5 = 9

Subtraction

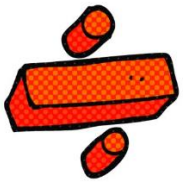
Example: 9 – 5 = 4

Multiplication

Example: 4 X 5 = 20

Division

Example: 20 ÷ 5 = 4



2. Write the symbols in the correct columns:

× + ÷ –

Addition	Subtraction	Multiplication	Division

SUBTRACTION WORDS (-)

3. *Learn!

Subtraction is **taking one number away from another.**
Here are some words that are used for subtraction:

difference
What is the difference between 6 and 2? Answer = 4

minus
What is 6 minus 2? Answer = 4

take away
What is 6 take away 2? Answer = 4

6 - 2 =

left
How much is left after 2 is taken from 6? Answer = 4

less
By how much is 2 less than 6? Answer = 4

4. Answer these:
a) What is 10 take away 9? _____
b) What is the difference between 7 and 12?
_____
c) How much is left when 5 is taken from 15?
_____
d) How much is 8 less than 14? _____
e) What is 30 minus 10? _____

B. Even and odd numbers

What is an even number?

A number that is a multiple of 2.

Examples of even numbers: { . . 2, 4, 6, 8, . . . }.

What is an odd number?

A number that is not a multiple of 2.

Examples of odd numbers: { ... 1, 3, 5, 7, 9. . . }.

1. Write these numbers in the correct column:

5, 8, 1, 9, 10, 3, 13, 2, 6, 11, 4, 7

Even numbers	Odd numbers

1. Complete these:

a) Even numbers: 22, 24, ___, ____, 30, ___, 34, ___, ____, ____

b) Odd numbers: 23, 25, ___, 29, ___, 33, ___, ____

2. Write the odd numbers from 66 to 79.

{ _____ }

Assessment Brief 2

Programme Module Title:	Level 2 Quantitative Problem Solving
Component Title and Code:	M2N09
Assessment Technique:	Collection of Work
Weighting:	100%
Title:	**Quantitative Elements**

Guidelines:

You will be expected to:

1. Identify quantitative elements in a range of everyday circumstances, e.g. daily budget, following a recipe, taking a temperature, planning an outing – including distances, dates, times and costs.
2. Identify a range of everyday addition, subtraction, multiplication and division problems.
3. Recognise the benefits of solving such problems mentally.

Assessment criteria:

- Answer the questions in the booklet/worksheets provided.
- Structure answers in a logical and clear manner.
- Answers to problems must be generally accurate.
- Show your working out.
- Use mathematical symbols, such as +, -, =, ÷, x.
- Use aids such as personalised maths dictionaries, number lines and squares, software packages, etc., as appropriate.
- Use a pocket/online calculator, using the symbols correctly and obtaining answers to problems.
- Ensure the correct spelling of familiar and personally relevant words.

Submission Date: _____

I, _____, confirm that this is my own original work.

Signed:_____ Date: _____

2. Match the questions and answers.

a) How far is it to the city?	6 o'clock
b) How much does that sandwich cost?	2 hours
c) What date is it today?	5°C
d) How much does the cat weigh?	8 kilometres
e) At what time is dinner?	6 ft
f) How long is the movie?	€3
g) How old are you?	19th October
h) How much milk do you buy?	5 kilograms
i) How tall is he?	1 litre
j) What is the temperature today?	52

1. Complete the sentences with the most sensible numbers:

10, 2, 100, 42

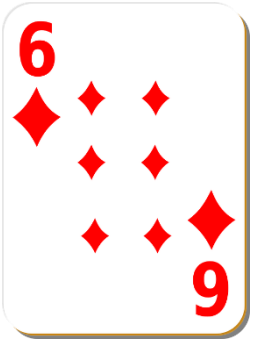
a) I drank ____ glasses of wine.

b) The tutor is ____years old.

c) I can count to ____ using my fingers.

d) A century is ___years.

4. Write the numbers:

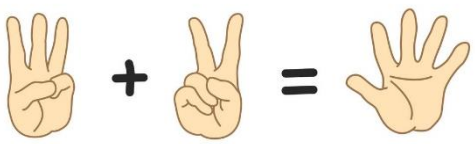


SAMPLE

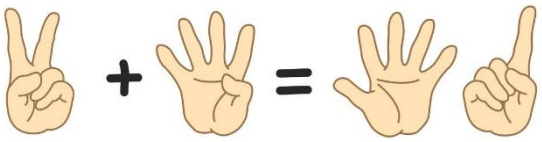
A.Addition

We can use our fingers to help with addition.

Example:



3 + 2 = 5



2 + 4 = 6

I. Add:

+	4	8	10	2	9	3
5						
1						
7						
11						
0						
15						

. Read the information.

Zero (0) means nought, or no quantity.

The sum of any number and zero is the original number.

For example: 5 + 0 = 5. If you have €5 and I give you nothing, then you still have €5!

13. Complete:

a) 0 + 2 = _____

b) 0 + 4 = _____

c) 6 + 0 = _____

d) 3 + 0 = _____

e) 0 + 5 = _____

f) 0 + 12 = _____

g) 0 + 7 = _____

h) 7 + 0 = _____

i) 0 + 9 = _____

j) 0 + 1 = _____

k) 0 + 0 = _____

11 + 0 = 11

25 + 0 = 25

99 + 0 = 99

1. Write the sums for these problems:

a) Jenny had 7 euro. She bought lunch for 4 euro. How much money does she have left?

_____

b) Jacob bought 8 sausages and he fried 4. How many sausages does he have left?

_____

c) Emma had 5 bills to pay. She paid 3 of them. How many bills must she still pay?

_____

d) Tony had 9 apples and he used 4 apples to make a smoothie. How many apples did he have left?

_____

e) There were 4 cupcakes on the table. I ate 4 cupcakes. How many cupcakes were left?

_____

B. Bigger or Smaller

1. Read these problems. Tick if the number will get bigger or smaller.

	Bigger	Smaller
I have 10 oranges. I use 5 for juice. How many do I have left?		
I have 2 cars and I sell one. How many cars do I have now?		
I have 2 potatoes on my plate. I add another 2. How many do I have now?		
I have 7 mugs. I break 2. How many do I have left?		

> greater than, < smaller than

2. Use the symbols >, < or =.

a) 19 ☐ 18
b) twenty ☐ thirty
c) 36 ☐ 63
d) 2 + 5 ☐ 7
e) 32 ☐ 77
f) 90 ☐ 31
g) 36 ☐ 39
h) 77 ☐ 67
i) 58 ☐ 97
j) 10 – 3 ☐ 4
k) 9 – 9 ☐ 9 + 0
l) 8 – 5 ☐ 7 - 6

15. Answer the word problems:

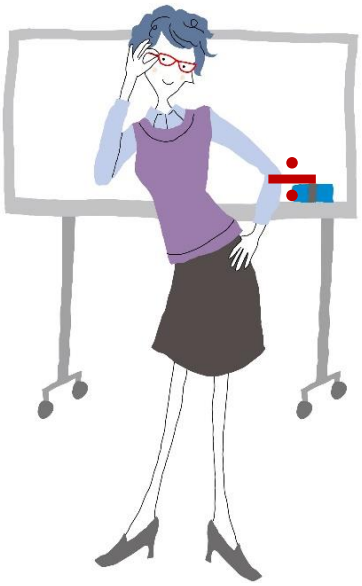
Ellen is having a barbecue for her 40th birthday. Write the sums and work out the problems:

a) She buys 10 steaks that cost €7 each. How much does she spend on steaks altogether? _____

b) She buys 3 packets of rolls. Each packet has 8 rolls. How many rolls did she buy? _____

c) If 9 people go to the barbecue and Ellen wants to have enough beers to give each person 2, how many beers will she buy? _____

1. Complete the division boxes below:



Example:

IN	OUT
32	8
12	3
20	5
Divide by 4	

IN	OUT
6	
21	
15	
Divide by 3	

IN	OUT
50	
25	
5	
Divide by 5	

IN	OUT
28	
49	
21	
Divide by 7	

IN	OUT
22	
40	
16	
Divide by 2	

A. Everyday Quantities

1. You are driving, and you see this sign.

a) You want to go to the park. If you go from here and back again, how many kilometres will you go? _____

b) How much further away is the city than the park? _____

Show 2 ways you would work out the total.

_____

_____

_____

_____

c) Which method do you like using? _____

Which place is the closest? _____

SAMPLE

2. These are Tom's cleaning products. Answer the questions:

a) How many bottles are there altogether? _____

b) If each of these products cost €2 each, how much will 4 bottles cost? _____

c) If Tom uses half the products, how many products does she use? _____

d) Tom throws away the blue bottles as they are empty. How many bottles will she have? Show 2 ways you could solve it.

_____

_____

_____

_____

e) Which method do you like using? _____

3. There is a clothing sale on in town:

a) If each shirt usually costs €10, how much will it cost if I buy one shirt on sale?

b) How much will it cost if I buy 3 shirts on sale?

c) If I buy 1 shirt on sale and I pay with a €20 note, how much change will I get?

d) If the green shirt is half the price of the sale price, how much does the green shirt cost?

Learning Outcomes - Mapping

1. Identify quantitative elements in a range of everyday circumstances, e.g. daily budget, planning an outing – including distances, dates, times and costs. Pages 39 to 45 (numbers in everyday life, including capacity, weight, distance, dates, temperature, number of family members, time, prices, recipe, making a personal collection of documents which have numbers), Pages 46 and 47 (finding the numbers), Pages 48 to 52 (writing numbers in everyday situations, including speed limit, phone number, weather report, food label, etc.)

2. Be aware of approaches that can be used to solve quantitative problems, e.g. estimation, modelling and flow charts. Pages 23 to 31 (basic mathematical operations), Pages 55 to 65 (addition), Pages 66 to 75 (addition and subtraction), Pages 75 and 76 (bigger or smaller), Pages 77 to 87 (multiplication), Pages 88 to 94 (division), Page 95 (division and multiplication), Pages 96 to 97 (estimation), Pages 98 to 99 (flow charts), Pages 100 to 106 (mental maths)

3. Use mathematical terms and symbols to represent problems. Pages 7 to 11 (numbers as words), Pages 12 to 22 (counting), Pages 32 and 33 (odd and even numbers), Page 34 (problem-solving words), Pages 35 and 36 (greater/less than)

4. Find a solution to a real-life quantitative problem. Pages 108 to 109 (writing sums for everyday situation), Pages 110 (choosing the correct operations), Pages 111 and 112 (everyday problem solving), Page 113 (invitation), Page 114 (parking), Page 115 (road sign), Page 116 (postage), Page 117 (transport), Page 118 (routine), Page 119 (cleaning), Page 120 (shopping), Page 121 (charity shop), Page 122 (time), Page 123 (library workers), Page 124 (students), Page 125 (pet food), Page 126 (clothing sale), Page 127 (fruit), Page 128 (recipe), Page 129 (buying a hat), Page 130 (medication), Page 131 (clock and minutes)

5. Evaluate the solution obtained for the problem. Page 112 (tea and cake), Page 113 (invitation), Page 114 (parking), Page 115 (road sign), Page 116 (postage), Page 117 (transport), Page 119 (cleaning), Page 124 (students), Page 128 (recipe)