



REVERSE CALCULATIONS

How to check your answers



You can use a calculator but
you must show all your workings out.

E2/E3

Name: _____

Date: _____

Maximum marks available = 40

E2-E3 Functional Maths

Checking your answers with reverse calculations



Question 1

A sandwich costs 75p

- a) I pay with a £1 coin.
How much change do I get?

- b) Show a reverse calculation to check your answer.

E2.5, E2.12, E2c (2 marks)

Question 2

Concert tickets cost £25 each.

The train journey to get to the concert and back costs £15.

- a) How much will it cost for the concert and the train journey?

- b) Show a reverse calculation to check your answer.

E2.5, 2.12, E2c (2 marks)

Question 3

Nicky has 14 packs of chocolate chip muffins.

In each pack there are 8 muffins.

- a) How many muffins does she have altogether?

- b) What calculation could you do to check your answer?

E2.6, E2.8, E2c (2 marks)

E2-E3 Functional Maths

Checking your answers with reverse calculations

Question 4

A ticket for a theme park costs £32 and the coach ticket costs £12.
You have this amount of money to start with:



- How much money will you have left?
- Show a way to check one of your calculations.

E2.5, E2.12, E2.22, E2c (3 marks)

Question 5

A couple are going to Dublin for a day trip. The cost of their trip is shown below.

Item	Cost
Ferry one way with car	£119.00

- They want a return trip. What is the total cost?
- Check your answer.

E3.2, E3.10, E3.21, E3c (2 marks)

Question 6 - Use the total cost answer from Question 5.

The couple pay a deposit of £50 before they go to Dublin.

- How much is left to pay?
- Now check your answer.

E3.2, E3.10, E3c (2 marks)

E2-E3 Functional Maths

Checking your answers with reverse calculations



Question 7

You go out for a meal with a friend. The meal comes to £64 in total.

- a) If you share the cost equally, how much do you each pay?

- b) What calculation could you do to check your answer?

E2.8, E2.12, E3.4, E2/3c (2 marks)

Question 8

A group of four friends have booked a weekend holiday at Weston super Mare.

Item	Price
Accommodation for four	£236
Insurance EACH	£25

- a) What is the total cost of the holiday?

- b) How much does each person pay?

- c) Use a reverse calculation to check your answer to (b)

E3.2, E3.3, E3.4, E3.21, E3c (3 marks)

Question 9

Jade has £32.50 in her bank account. She spends £7.60 using her debit card.

- a) How much is left in her account?

- b) Now check your answer.

E3.10, E3c (2 marks)

E2-E3 Functional Maths

Checking your answers with reverse calculations

Question 10

Sam wants to travel from Exeter by train and stay overnight in Edinburgh.

Item	Price
Return train fare – Exeter to Edinburgh	£184.00
Accommodation – 1 night	£79.00

- Add up the total cost.
- Sam has a voucher for £25 off the cost. How much does he pay after the discount?
- Use a reverse calculation to check your answer to (b)

E3.2, E3.10, E3.21, E3c (3 marks)

Question 11

A family book a dolphin watching tour. They need tickets for 2 adults and 2 children.

Dolphin tour	Price
Adult	£25
Child	£15

- How much will the dolphin tour cost? **Show all your working out.**
- Now do a calculation to check one of your calculations.

E2.5, E2.12, E3.3, E3.4, E2.22, E2/3c (3 marks)

E2-E3 Functional Maths

Checking your answers with reverse calculations



Question 12

During the coronavirus pandemic 50 people a day are allowed to visit an exhibition.

a) How many people can visit from Monday to Wednesday?

b) Now check your answer.

E3.3, E3.4, E3c (2 marks)

Question 13

There are 20 donkeys at a sanctuary. At night, four donkeys are put in each stable.

a) How many stables do they need?

b) Now check your answer.

E2.6, E2.8, E2c (2 marks)

Question 14

Donkey rides are £3 for each child.

One Saturday, 28 children had a donkey ride.

a) How much money did the donkey rides raise?

b) Now check your answer.

E2.8, E3.4, E2/3c (2 marks)

E2-E3 Checking your answers with reverse calculations

Y Stretch questions

Question 15

Five friends buy food for their holiday.

They want to share the cost of the food equally between them. The food costs £80.

- a) How much must each of the 5 friends pay for the food?

Write your working and your answer in the box below.

- b) Show how you can check your answer.

E2.8, E2.12, E3.4, E2/3c (2 marks)

Question 16

Mel wraps some parcels with bubble wrap.

Mel uses 420 cm of bubble wrap for a large parcel and half as much for a small parcel.

- a) How much bubble wrap does Mel use for a small parcel? Write your answer in the box.

- b) Show how you can check your answer.

E3.3, E3.4, E3c (2 marks)

E2-E3 Checking your answers with reverse calculations

Y Stretch questions

Question 17

Ken helps to plan the sports day for Mill Lane School.

There are 200 students at the school.

Ken puts the students into 5 teams. Every team has the same number of students.

- a) How many students are there in each team?

- b) How you can check your answer? Write your check in the box below.

E3.3, E3.4, E3c (2 marks)

Question 18

Toby and his friend want to go on a holiday together.

In the travel agents a holiday to Turkey costs £467 for each person.

- a) How much would it cost for Toby and his friend to go to Turkey?

- b) How you can check your answer? Write your check in the box below.

E3.2, E3.3, E3.4, E3c (2 marks)

Checking your answers with reverse calculations - curriculum mapping

Subject Content: Reformed Functional Skills Mathematics – Entry Levels 2-3

✓✓ = main content and problem-solving skill(s) covered in this resource, although these may vary with the student group and how the resource is used by the teacher. ✓ = other coverage. Content at each level subsumes and builds upon the content at lower levels.

For a list of all content descriptors refer to:

DfE (Feb 2018) <https://www.gov.uk/government/publications/functional-skills-subject-content-mathematics>

1. Fundamental mathematical knowledge and skills These must be demonstrated in their own right, both with and without a calculator, in addition to being used to solve problems or complete tasks.

Entry Level 2

Entry Level 3

Using numbers and the number system (N)

- 5. Add and subtract two-digit numbers ✓
- 6. Multiply whole numbers in the range 0x0 to 12x12 (times tables) ✓
- 8. Divide two-digit whole numbers by single-digit whole numbers ✓

- 2. Add and subtract using three-digit whole numbers ✓
- 3. Divide three-digit whole numbers by single- and double-digit whole numbers and express remainders ✓
- 4. Multiply two-digit whole numbers by single- and double-digit whole numbers ✓

Using common measures, shape and space (MSS)

- 12. Calculate money with pence up to one pound and in whole pounds of multiple items and write with the correct symbols (£ or p) ✓

- 10. Calculate with money using decimal notation and express money correctly in writing in pounds and pence ✓

Handling information and data (HD)

- 22. Extract information from lists, tables, diagrams and bar charts ✓

- 21. Extract information from lists, tables, diagrams and charts and create frequency tables ✓

2. Mathematical problem solving, carrying out tasks and decision-making

Entry Level students are expected to be able to use the knowledge and skills (see above) to recognise a simple problem¹ and obtain a solution.

¹ A **simple mathematical problem** is one which requires **working through one step or process**. Context for simple problems at Entry levels should be **familiar to all students** and easily described. At Entry levels it is expected that students will be able to address individual problems each of which draw upon knowledge and /or skills **from one mathematical content area** (i.e. N, MSS or HD).

Entry 1 students

Entry 2 students

Entry 3 students

are expected to be able to:

Use the content knowledge and skills to recognise a ¹**simple problem** and obtain a solution

E1a. Use given mathematical information and recognise and use simple mathematical terms appropriate to E1.

E2a. E3a. Use given mathematical information including numbers, symbols, simple diagrams and charts. ✓ **All questions**

E2b. Recognise, understand and use simple mathematical terms appropriate to Entry Level 2. ✓

E3b. Recognise, understand and use simple mathematical terms appropriate to Entry Level 3. ✓

E1b. E2c. E3c. Use the methods given above [i.e. in the relevant content descriptors] to **produce, check and present results** that make sense [E3 only: to an appropriate level of accuracy]. ✓✓

E1c. Provide a simple explanation for those results.

E2d. Present appropriate explanations using numbers, measures, simple diagrams, simple charts and symbols appropriate to Entry Level 2. ✓

E3d. Present results with appropriate explanation using numbers, measures, simple diagrams, charts and symbols appropriate to Entry Level 3. ✓

Source: DfE (Feb 2018) <https://www.gov.uk/government/publications/functional-skills-subject-content-mathematics>