

Fractions – real world examples

Name _____ Date _____



Black Friday Sales



1. If a jumper usually costs £20, how much will it cost in a half-price sale?
2. I bought my new mirror in a half-price sale. It cost me £12.
How much would it have cost before the sale?

Watching the rugby

A rugby game is 80 minutes long and kicks off at 15:00.

3. At what time will half-time be (assuming no delays)?
4. The half-time break is 20 minutes long. What time will the match finish?



Knowing your Teachers

Your old maths teacher was a third of a century old. Your current maths teacher is a quarter of a century old.

5. Who is older and by how many years?

Should have gone to Specsavers

I have chosen 2 pairs of glasses. I have to pay full price for my first pair, but my second pair has got a $\frac{1}{3}$ discount. Each pair is £210 at full price.



6. How much will the 2nd pair cost?
7. How much will I pay altogether?

Stock Check



Managing a pub for Brains means keeping stock of all spirits 'as close to eighths as possible'.

8. Having completed the stock check, you need to convert the following amounts into millilitres:

(NB – All bottles are 1ltr in size)

Whiskey - 4 eighths

Vodka – 6 eighths

Brandy – 5 eighths

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Answers and curriculum mapping



Black Friday Sales (E2-3)

1. If a jumper usually costs £20, how much will it cost in a half-price sale? **£10**

2. I bought my new toaster in a half-price sale. It cost me £12.

How much would it have cost before the sale? **£24**

Watching the rugby (E3-L1)

A rugby game is 80 minutes long and kicks off at 15:00.

3. At what time will half-time be (assuming no delays)? **15:40**

4. The half-time break is 20 minutes long. What time will the match finish? **16:40**

Knowing your Teachers (E3-L1)

5. Your old maths teacher was a third of a century old. Your current maths teacher is a quarter of a century old. Who is older and by how many years? **Older teacher – 33yrs Younger – 25yrs Difference 33 – 25 = 8yrs**

Should have gone to Specsavers (L1)

I have chosen 2 pairs of glasses. I have to pay full price for my first pair, but my second pair has got a $\frac{1}{3}$ discount. Each pair is £210 at full price.

6. How much will the 2nd pair cost? **$\frac{1}{3}$ of £210 = £70. $210 - 70 = 140$**

7. How much will I pay altogether? **$140 + 210 = £350$**

Stock Check (L1-2)

8. Managing a pub for Brains means keeping stock of all spirits 'as close to eighths as possible'.

Having completed the stock check, you need to convert the following amounts into millilitres:

(NB – All bottles are 1ltr in size)

Whiskey - 4 eighths = $\frac{1}{2}$ = **500ml**

Vodka – 6 eighths = $\frac{3}{4}$ = **750ml**

Brandy – 5 eighths **1 eighth = 125ml so 5 eighths = 625ml**

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Answers and curriculum mapping

FUNCTIONAL MATHEMATICS Coverage and Range statements (indicative only)

Coverage and range statements provide an indication of the type of mathematical content candidates are expected to apply in functional contexts. Relevant content can also be drawn from equivalent National Curriculum levels and the Adult Numeracy standards. ✓ indicates the main coverage and range skills covered in this resource, although these will vary with the student group and how the resource is used by the teacher.

Entry Level 2

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|---|---|
| <ul style="list-style-type: none"> a) understand and use whole numbers with up to two significant figures b) understand and use addition/subtraction in practical situations c) use doubling and halving in practical situations ✓ d) recognise and use familiar measures, including time and money | <ul style="list-style-type: none"> e) recognise sequences of numbers, including odd and even numbers f) use simple scales and measure to the nearest labelled division g) know properties of simple 2D and 3D shapes h) extract information from simple lists |
|---|---|

Entry Level 3

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|---|--|
| <ul style="list-style-type: none"> a) add and subtract using three-digit numbers b) solve practical problems involving multiplication and division by 2, 3, 4, 5 and 10 c) round to the nearest 10 or 100 d) understand and use simple fractions ✓ e) understand, estimate, measure and compare length, capacity, weight and temperature f) understand decimals to two decimal places in practical contexts | <ul style="list-style-type: none"> g) recognise and describe number patterns h) complete simple calculations involving money and measures i) recognise and name simple 2D and 3D shapes and their properties j) use metric units in everyday situations k) extract, use and compare information from lists, tables, simple charts and simple graphs |
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Level 1

- | | |
|---|---|
| <ul style="list-style-type: none"> a) Understand and use whole numbers and understand negative nos. in practical contexts b) Add, subtract, multiply and divide whole numbers using a range of strategies c) Understand and use equivalences between common fractions, decimals and percentages ✓ d) Add and subtract decimals up to two decimal places e) Solve simple problems involving ratio, where one number is a multiple of the other f) Use simple formulae expressed in words for one- or two-step operations | <ul style="list-style-type: none"> g) Solve problems requiring calculation, with common measures, including money, time, length, weight, capacity and temperature h) Convert units of measure in the same system i) Work out areas and perimeters in practical situations j) Construct geometric diagrams, models and shapes k) Extract and interpret information from tables, diagrams, charts and graphs l) Collect and record discrete data and organise and represent information in different ways m) Find mean and range n) Use data to assess the likelihood of an outcome |
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Level 2

- | | |
|---|---|
| <ul style="list-style-type: none"> a) understand and use positive and negative numbers of any size in practical contexts b) carry out calculations with numbers of any size in practical contexts, to a given number of decimal places c) understand, use and calculate ratio and proportion, including problems involving scale d) understand and use equivalences between fractions, decimals and percentages ✓ e) understand and use simple formulae and equations involving one or two operations f) recognise and use 2D representations of 3D objects | <ul style="list-style-type: none"> g) find area, perimeter and volume of common shapes h) use, convert and calculate using metric and, where appropriate, imperial measures i) collect and represent discrete and continuous data, using information and communication technology (ICT) where appropriate j) use and interpret statistical measures, tables and diagrams, for discrete and continuous data, using ICT where appropriate. k) use statistical methods to investigate situations l) use probability to assess the likelihood of an outcome |
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References: Ofqual (2009), *Functional Skills criteria for Mathematics: Entry 1, Entry 2, Entry 3, level 1 and level 2.*

<https://www.gov.uk/government/publications/functional-skills-criteria-for-mathematics>

This resource also covers many **adult numeracy curriculum** elements. <http://www.excellencegateway.org.uk/content/etf1075>