

# Functional Skills Maths

## Entry Level 3

## Study Pack 2

# ***Money and Number***

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*HCUC offer courses in mathematics at Entry level, Level 1, GCSE and A level. The following resource give you a taste of some of the topics covered in Functional Skills and GCSE maths lessons. It includes some important facts along with worked examples and exam style questions. The solutions are included for your reference.*

*The purpose of this resource is to give an initial insight into an example lesson. Actual lessons may consists of more activities/use of technology and may be adapted to meet the needs of individual learners.*

In this pack there are 3 example lessons:

**Lesson 1:** Money

Pages 3 – 11

**Lesson 2:** Whole numbers, decimals & Rounding

Pages 12 – 21

**Lesson 3:** Fractions & Decimals

Pages 22 - 32

# Functional Skills Maths

## Entry Level 3

## Money Skills

## Study Resource

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### **Money in Functional Skills Entry 3**

Money is in the topic of 'Measure'.

At Entry 3, you are assessed on being able to calculate with money using decimal notation and express money correctly in writing in pounds and pence. You will also be assessed on being able to round amounts of money to the nearest £1 or 10p.

# Money skills

## Introduction

We all know how to spend money, but how are your Maths skills when it comes to money? This document will give you a chance to check and update your skills.

### Key Words relating to Money

Convert change from one thing to another

Round To 'round' a number is to change the number to one that is less exact but easier to use for calculations

Currency Another word for money

Profit The money earned or made when something is sold and any other costs

Discount To pay less for something; to get money off the price of an item

Exchange To swap for something else. In terms of money, this usually means swap your British pounds for money from another country or the other way round.

Interest Money paid regularly at a particular rate. This could be money which is in a bank account of has been borrowed, like a loan.

### When you work with money, you use decimal numbers.

Decimals are numbers that have a 'dot' in them, just one dot. For British money, the dot separates the pounds (£) from pence (p).

When dealing with money, we sometimes round the value, to make it easier for us to talk about or use. For example, if a shirt costs £14.99, you might tell someone that it costs £15.

Another example might be if you wanted to buy a few items at 45p, 29p and 99p. You might round those numbers in your head to 50p, 30p and £1 to check you had enough money to buy them.

Try the tasks on the next page to check your money skills.

**Task 1:** Can you name the value of these different coins?

*(Answers are given on the last page of this document)*

Your options are 1p, 2p, 5p, 10p, 20p, 50p, £1, £2

A	B	C	D	E	F	G	H
							

You need to be able to work out total when you have lots of coins together.



**Task 2:** How much is each pile of coins worth?

*(Answers are given on the last page of this document)*



### Task 3

Add up the costs listed below

Could you buy each list with a £5 note or would you need a £10 note?

- A) Coffee (£2), cake (£1), large cola (£1)
- B) Burger (£3), chips (£1.50), water (£1)
- C) Pasta (75p), Beans (50p), milk (£1.10), sugar (£0.80)
- D) 2 x sausage roll (1 is 90p), 3 x vegetable pasty (1 is £1.10), 2 x tomato soup (1 is 85p)



Extension task: How much change would you get from a £5 or £10 note?

### Task 4

By matching the 'unrounded' sums on the left with the 'rounded' versions on the right, find the pair that don't match.

#### Unrounded values

- A)  $46 + 37$
- B)  $19 + 73$
- C)  $25 + 59$
- D)  $56 + 24$
- E)  $34 + 96$
- F)  $66 + 29$
- G)  $25 + 59$
- H)  $63 + 38$

#### Rounded values

- 1)  $70 + 30$
- 2)  $30 + 50$
- 3)  $50 + 40$
- 4)  $70 + 40$
- 5)  $20 + 70$
- 6)  $30 + 60$
- 7)  $60 + 20$
- 8)  $10 + 80$

**Extension:** For the pair that doesn't match, write down a value for each on that will match with it.

## Answers

### Task 1

A	B	C	D	E	F	G	H
1p	50p	£1	2p	£2	10p	20p	5p

### Task 2

A)  $2p + 2p + 20p + 50p = 74p$

B)  $10p + 20p + £1 + £1 + 50p = £2.80$

C)  $50p + 50p + 50p + £2 + £2 + 10p = £2.60$

D)  $1p + 1p + 1p + 20p + 20p + 20p + £1 + 50p = £2.13$

### Task 3

A)  $£2 + £1 + £1 = £4 \rightarrow$  Yes, you could use a £5 note

B)  $£3 + £1.50 + £1 = £5.50 \rightarrow$  No, you could not use a £5 note, you need a £10 note

C)  $75p + 50p + £1.10 + £0.80 = £3.15 \rightarrow$  yes, you could use a £5 note

D)  $(2 \times 90p) + (3 \times £1.10) + (2 \times 85p) = 180p + £2.20 + 170p = £1.80 + £2.20 + £1.70 = £5.70 \rightarrow$  No, you could not use a £5 note, you need a £10 note.

### Task 3 Extension

A)  $£5 - £4 = £1$  change

B)  $£10 - £5.50 = £4.50$

C)  $£5 - £3.15 = £1.85$

D)  $£10 - £5.70 = £4.30$

### Task 4

A)  $46 + 37$  matches to 3)  $50 + 40$

F)  $66 + 29$  matches to 1)  $70 + 30$

B)  $19 + 73$  matches to 5)  $20 + 70$

G)  $25 + 54$  matches to 2)  $30 + 50$

C)  $25 + 59$  matches to 6)  $30 + 60$

H)  $63 + 38$  matches to 4)  $70 + 40$

D)  $56 + 24$  matches to 7)  $60 + 20$

---

E)  $34 + 96$  and 8)  $10 + 80$  do not match.

E)  $34 + 96$  would match with  $40 + 100$ .

8)  $10 + 80$  could match with  $14 + 83$  or  $9 + 76$  or  $7 + 79$  or  $5 + 84$

$10 + 80$  could be (any number between 5 and 14) + (any number between 75 and 84)

## **Links to websites**

Below are a few websites which you might find useful. We suggest you go to them by clicking on the links below, rather than try and type them in!

<b>Link</b>	<b>Information</b>
<a href="https://youtu.be/5IzYZRcKOnY">https://youtu.be/5IzYZRcKOnY</a> <a href="https://youtu.be/6IN7p914Ov8">https://youtu.be/6IN7p914Ov8</a>	How to change Pounds(£) to Pence(p) and change Pence(p) to Pounds(£)
<a href="https://youtu.be/LVGZPT2Ilsc">https://youtu.be/LVGZPT2Ilsc</a>	Rounding pounds and pence
<a href="https://youtu.be/oi-J_8TAEul">https://youtu.be/oi-J_8TAEul</a>	Adding pounds and pence
<a href="https://youtu.be/_n7IWGMREgo">https://youtu.be/_n7IWGMREgo</a> <a href="https://youtu.be/arw4XshpwpQ">https://youtu.be/arw4XshpwpQ</a>	Solving Money problems

## **Topic Quiz**

Test your skill with this online quiz:

<https://forms.gle/bgQ8obLotzUFtbY17>

It will mark it for you and give you feedback if you got a question wrong. Good luck!

## Exam-Style Questions

Here are some typical exam questions at this level:

- 1) Pete buys some dog snacks. The dog snacks cost £7.90.

He pays with a £10 note.

How much change should Pete get?



~~~~~

- 2) Sue and Beth go to a café.

Sue buys 2 teas, 2 sandwiches and 1 pasta.

What is the total cost their food?

| Price list     |       |
|----------------|-------|
| Tea            | £1.50 |
| Coffee         | £2.95 |
| Juice          | £2.15 |
| Sandwich       | £4.30 |
| Fish and chips | £9.50 |
| Pasta          | £7.25 |

1)

$$\begin{array}{r} 10.00 \\ - \underline{7.90} \\ \underline{2.10} \end{array}$$

Answers

Valid process to calculate change,  
e.g.  $10 - 7.9$

1 or

£2.10 correct money notation  
required

2

2) **2 teas =  $1.50 + 1.50 = 3.00$**

**2 sandwiches =  $4.30 + 4.30 = 8.60$**

**1 pasta = 7.25**

**£ 18.85**

# Functional Skills Maths

## Entry Level 3

### Number 1

## Study Pack

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*The purpose of this resource is to give an initial insight into an example lesson. Actual lessons may consist of more activities/use of technology and may be adapted to meet the needs of individual learners.*

## **Whole Numbers, Decimals and Rounding in Functional Skills Entry 3**

### **Content List**

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| Online quiz                               | Page 18  |
| Exam-style questions and worked solutions | Pages 19 |

At Entry 3, you are assessed on being able to Count, read, write, order and compare numbers up to 1000. This document helps you with updating your skills on the above skills.

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## Reading and writing numbers:

The first step in working on maths and dealing with problem solving questions is to know how to read and write numbers. In your daily life, you may plan to buy a car/house and need to read the advertisements with prices, for instance.

Aiming this, you will need to know the place names in numbers. Look at the first example now.

### Example 1:

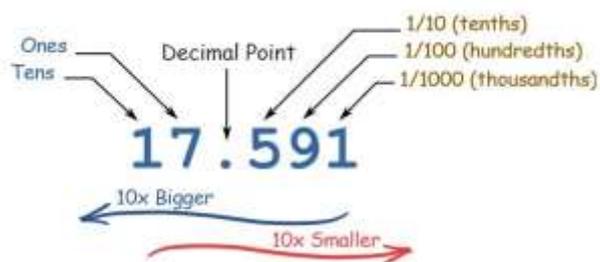
| thousands | hundreds | tens | units |
|-----------|----------|------|-------|
| 4         | 8        | 9    | 1     |

We read the above number as: *four thousand, eight hundred and ninety one.*

This is how we write this number: **4,891** (use the comma to make it easier when reading, however, it is optional).

**Example 2:** In the number 21.9 the point separates the 21 (the whole number part) from the 9 (the fractional part, which means 9 tenths). So 21.9 is 21 and nine tenths.

**Example 3:** below is how we show and express decimal places up to 3.



## Rounding numbers:

By rounding the numbers, you will be able to approximate numbers to a given number of places. At your level, numbers can be rounded to the nearest 10 and 100.

### *The general rule:*

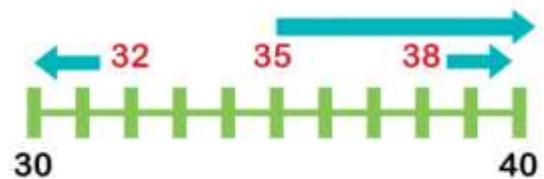
A good way of explaining this is to use a **number line**.

First, we identify the place value we are rounding to (nearest 10 or 100).

If we were rounding to the nearest ten, we would consider the value in the 'ones' column.

- If that number was **less than five**, the number needs to be **rounded down**.
- If that number is **5 or above**, the number needs to be **rounded up**.

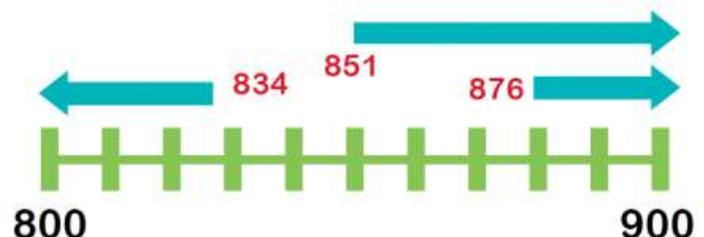
So 32 would be rounded down to 30, 35 would be rounded up to 40 and 38 would also be rounded up to 40:



If we were rounding to the nearest hundred, we would consider the value in the 'tens' column.

- If the **tens digit** is **less than 50** the **number is rounded down**.
- If the **tens digit** is **50 or more**, the **number is rounded up**.
- The 'ones' digit can be ignored when rounding a three-digit number to the nearest 100

So 834 would be rounded down to 800, 851 would be rounded up to 900 and 876 would be rounded up to 900:



*(The examples above were taken from <https://www.theschoolrun.com/what-is-rounding-numbers>)*

**Example 4:** round the number 6471 to the nearest 10 and 100.

Rounding to the nearest 10:

6 4 7 1



*Less than 5 therefore it will be rounded down*

7 is in the 'tens' column in this number. The ones digit is 1 and hence, this number to the nearest 10 would be rounded as 6470

**Rounded to 10 = 6470**

Rounding to the nearest 100:

6 4 7 1



*75 is above 50 so will be rounded up*

4 is in the 'Hundreds' column and the digits on the right-hand are 75. Therefore, this number to the nearest 100 would be rounded as 6500

**Rounded to 100 = 6500**

## Ordering integers:

Integers are whole numbers, exact numbers, numbers you could count on your fingers. When you are given a set of integer numbers to be written in order, for instance, starting with the biggest number, you could consider looking at how many digits for each number.

This only works with whole numbers, not any numbers with a decimal point!

You can choose the number with the most digits. Then, comparing the numbers with the same amount of digit, you need to look at the digits from left-hand side onwards to judge which number goes first. Try the question below:

### Example 5:

Put these numbers in descending order (means from biggest to smallest):

**46598, 952, 4910 and 47023.**

|   |   |   |   |   |
|---|---|---|---|---|
| 4 | 6 | 5 | 9 | 8 |
|   |   | 9 | 5 | 2 |
|   | 4 | 9 | 2 | 0 |
| 4 | 7 | 0 | 2 | 3 |

Write the numbers underneath each other, in a list.

- Look at the first column, the left-hand column. There are two numbers that have digits in that column, so they will be first and second, but in which order? We need to look at the next column for just those numbers.
- 
- One number has a '6' and the other a '7'. 7 is higher than 6 so 47023 is bigger than 46598.
- Next, we look at the second column. We have two numbers left to sort and only one of them has a value in the second column, so it must be bigger. It goes next.
- We are left with one value, which goes at the bottom of the list.

|   |   |   |   |   |
|---|---|---|---|---|
| 4 | 7 | 0 | 2 | 3 |
| 4 | 6 | 5 | 9 | 8 |
|   |   | 9 | 5 | 2 |
| 4 | 9 | 2 | 0 |   |

|   |   |   |   |   |
|---|---|---|---|---|
| 4 | 7 | 0 | 2 | 3 |
| 4 | 6 | 5 | 9 | 8 |
|   | 4 | 9 | 2 | 0 |
|   |   | 9 | 5 | 2 |

## **Link to website(s)**

Below are a few websites which you might find useful. We suggest you link to these on your device, rather than try and type them in!

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Place Value</b></p> <p><a href="https://www.bbc.co.uk/teach/skillswise/place-value/zbd747h">https://www.bbc.co.uk/teach/skillswise/place-value/zbd747h</a></p> <p><a href="https://www.mathsisfun.com/place-value.html">https://www.mathsisfun.com/place-value.html</a></p> <p><a href="https://www.youtube.com/watch?v=T5Qf0qSSJFI">https://www.youtube.com/watch?v=T5Qf0qSSJFI</a></p>                                                                                               | <p><b>Value of a digit in a number</b></p> <p><a href="https://www.youtube.com/watch?v=gfyS3g04i4Y">https://www.youtube.com/watch?v=gfyS3g04i4Y</a></p> <p><a href="https://www.basic-math-explained.com/place-value.html#.Xse23WhKjIU">https://www.basic-math-explained.com/place-value.html#.Xse23WhKjIU</a></p>                                                                                                                                                                                                                                              |
| <p><b>Writing number words in figures or figures in number words</b></p> <p><a href="https://www.youtube.com/watch?v=AsJ8ohjbvaM">https://www.youtube.com/watch?v=AsJ8ohjbvaM</a></p> <p><a href="https://www.khanacademy.org/math/pre-algebra/pre-algebra-arith-prop/pre-algebra-place-value/v/writing-numbers-in-words-and-standard-form">https://www.khanacademy.org/math/pre-algebra/pre-algebra-arith-prop/pre-algebra-place-value/v/writing-numbers-in-words-and-standard-form</a></p> | <p><b>Rounding/estimating – decimals</b></p> <p><a href="https://www.bbc.co.uk/teach/skillswise/rounding-and-estimating/zv8qcqt">https://www.bbc.co.uk/teach/skillswise/rounding-and-estimating/zv8qcqt</a></p> <p><a href="https://www.bbc.co.uk/bitesize/topics/zmdqxn">https://www.bbc.co.uk/bitesize/topics/zmdqxn</a></p>                                                                                                                                                                                                                                  |
| <p><b>Rounding to nearest 10/100</b></p> <p><a href="https://www.youtube.com/watch?v=wXPEUPjPFTE">https://www.youtube.com/watch?v=wXPEUPjPFTE</a></p> <p><a href="https://www.youtube.com/watch?v=Lv_FfilhVDo">https://www.youtube.com/watch?v=Lv_FfilhVDo</a></p> <p><a href="https://www.bbc.co.uk/bitesize/topics/zh8dmp3/articles/zipx2qtv">https://www.bbc.co.uk/bitesize/topics/zh8dmp3/articles/zipx2qtv</a></p>                                                                      | <p><b>Whole number/Big numbers</b></p> <p><a href="https://www.mathsisfun.com/whole-numbers.html">https://www.mathsisfun.com/whole-numbers.html</a></p> <p><a href="https://www.youtube.com/watch?v=YFyOsvnr9ig">https://www.youtube.com/watch?v=YFyOsvnr9ig</a></p> <p><a href="https://www.scholastic.com/parents/school-success/learning-toolkit-blog/easy-strategies-adding-and-subtracting-larger-numbers.html">https://www.scholastic.com/parents/school-success/learning-toolkit-blog/easy-strategies-adding-and-subtracting-larger-numbers.html</a></p> |

## **Topic Quiz**

Test your skill with this online quiz / these online quizzes:

<https://forms.gle/WW29BdbDcWUkkrJN7>

## Exam-Style Questions

Here is an example of a typical exam questions at this level:

**Q1.**

Lyn moves to a new flat.

These are the amounts she spends each month on rent and bills.

Rent  
£679

Bills  
£138

Calculate the total of these amounts.

(2)

(Total for question = 2 marks)

**Q2.**

Riya and her friends want to rent a flat.

They want the flat to be lower than the 5th floor.

They want a flat that costs between £875 and £925 per month.

Riya finds information about flats to rent.

**Which flat do they choose?**

(1)

Select one of the following answers:

|                                              |                                              |                                              |
|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| Flat A<br>6 <sup>th</sup> floor<br>Rent £919 | Flat B<br>3 <sup>rd</sup> floor<br>Rent £895 | Flat C<br>4 <sup>th</sup> floor<br>Rent £935 |
| Flat D<br>2 <sup>nd</sup> floor<br>Rent £867 | Flat E<br>7 <sup>th</sup> floor<br>Rent £900 | Flat F<br>1 <sup>st</sup> floor<br>Rent £870 |

(Total for question = 1 mark)

**Q3.**

A water meter shows how many units of water Riya and her friends use.

Riya reads the meter when they move in.

She reads the meter again after one month.

when they move in

789  
units

after one month

820  
units

**(a) How many units of water did the friends use in one month?**

(2)

**(b) Round 789 to the nearest 10**

(1)

**(c) Use the rounded number to check your answer to (a)**

(1)

**(Total for question = 4 marks)**

Answers to Exam Style Questions

Q1

**Total amount = rent + bills**  
**Total = 679 + 138 = £817**

Q2

**To satisfy the first condition, the choice is between flats B, C, D, or F, as all are in a floor lower than 5.**

**Flat C is excluded as its rent is more than £925.**

**Flats D and F are excluded because both have a rent less than £875.**

**Flat B is the flat satisfying the two conditions.**

Q3

**a) Units of water used are the difference between 820 and 789.**

**$820 - 789 = 31$ units.**

**b) The digit to the right of digit in the tens column will decide the rounding. As 9 is more than 5, 789 would be rounded up to 790.**

**c)  $820 - 790 = 30$ , 30 is very close to 31.  $790 + 31 = 821$ , which is also very close to 820.**

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# Functional Skills Maths

## Entry Level 3

### *Fractions, Decimals & Percentages*

## Study Pack

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## **Fractions, Decimals, and Percentages**

### **Introduction**

Fractions, Decimals and Percentages are used throughout modern day life, whether it is in the workplace, calculating if you have been charged income tax correctly, or in a shop whether you have been charged VAT correctly or even at the gym seeing whether your gym membership has been charged at the special offer discounted price! A person who chooses to ignore the skill of calculating these equivalences is clearly going to be disadvantaged!

At Functional Skills Entry Level 3, you will be assessed on the following topics in particular:

- Read, write, and understand thirds, quarters, fifths and tenths, including equivalent forms
- Read, write and use decimals up to two decimal places



# INTRODUCTION TO DECIMALS

## Not All Numbers Are Whole Numbers

- Decimals are numbers with a decimal point (.) in them. For example, 0.5, 1.3.
- If you are saying the number out loud, you say “point” where the “.” is. For example, 1.3 is one point three.
- They are used to show the numbers in between whole numbers.
- Digits to the right of the “.” are worth less than one.

The number 0.9 is a bit smaller than the number 1.

The number 1.1 is a bit bigger than the number 1.

The number 1.9 is a bit smaller than the number 2.

The number 1.0 is the same as the number 1.

The number 1.5 is exactly halfway between the numbers 1 and 2.

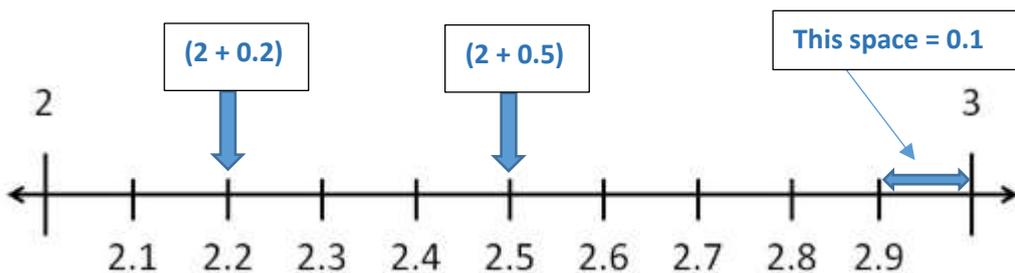
The number 2.54 is bigger than the number 2.51.

The number 4.61 is smaller than the number 4.63.

The number 6.80 is exactly the same as the number 6.8.

## You Can Show Decimals on a Number Line

- A number line is a line with numbers spaced out along it in order.
- The further right a number is on a number line, the bigger it is.
- The space in between the whole numbers can be split into divisions.
- If the space is split into 10 divisions then each division is equal to 0.1.
- You can see this on a number line.



## Decimals are Used in Money and Measuring

- Decimals are used in money to show pounds (£) and pence (p).
- Money is always written with two digits after the decimal point, even if they are just 0s at the end.

**£7.38 means 7 pounds and 38 pence.**

**You write £5.90 not £5.9 for 5 pounds and 90 pence.**

**£5.09 is 5 pounds and 9 pence.**

- Decimals are also used in measuring.
- For example, you can use them to show metres (m) and centimetres (cm).

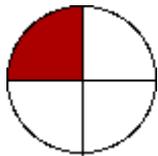
**3.20 m means 3 metres and 20 centimetres.**

**3.2 m means 3 m and 20 cm too.**

**1.62 m means 1 m and 62 sm.**

You do not need to have two digits after the point for measurements.

# INTRODUCTION TO FRACTIONS



Fractions are part of a whole

**Example:** For the circle shown, the shaded part is shown by the fraction  $\frac{1}{4}$ . Think of the fraction saying one part out of four parts.

The **denominator** (below the line) shows how many **equal** parts the object has been divided into.

The **numerator** (above the line) shows how many of these parts have been selected.

## Equivalent Fractions

The table below shows some **equivalent** fractions:

<b>1</b>							
$\frac{1}{2}$				$\frac{1}{2}$			
$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$	
$\frac{1}{8}$							
$\frac{1}{3}$			$\frac{1}{3}$			$\frac{1}{3}$	
$\frac{1}{6}$							

If both the numerator and denominator of a fraction are multiplied by the **SAME** number, the fraction stays the same.

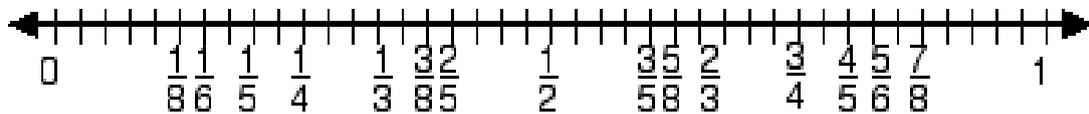
$$\text{e.g. } \frac{1}{2} = \frac{2}{4} = \frac{4}{8} \quad \text{and} \quad \frac{1}{3} = \frac{2}{6}$$

This property allows us to **SIMPLIFY** fractions, also known as **CANCELLING**.

$$\text{e.g. } \frac{9}{15} = \frac{9 \div 3}{15 \div 3} = \frac{3}{5}$$

Another way to simplify is to divide the numerator and the denominator by the **SAME** fraction. We normally give fractions in their **SIMPLEST** form.

These fractions can also be put on a number line:



## Link to website(s)

Below are a few websites which you might find useful. We suggest you link to these on your device, rather than try and type them in!

Link	Explanation
<a href="https://youtu.be/bHo_Mt6-XHI">https://youtu.be/bHo_Mt6-XHI</a>	Fractions – Video
<a href="https://corbettmaths.com/wp-content/uploads/2018/12/Fraction-of-Shapes-pdf.pdf">https://corbettmaths.com/wp-content/uploads/2018/12/Fraction-of-Shapes-pdf.pdf</a>	Fractions – Worksheet
<a href="https://www.k5learning.com/free-math-worksheets/sixth-grade-6/fractions-convert/simplifying-fractions-easy">https://www.k5learning.com/free-math-worksheets/sixth-grade-6/fractions-convert/simplifying-fractions-easy</a>	Simplifying Fractions worksheet
<a href="https://mathsbot.com/manipulatives/fractionWall">https://mathsbot.com/manipulatives/fractionWall</a>	Fractions Wall Game: First click on (Scatter) button, and then rearrange them as they were.
<a href="https://corbettmaths.com/2012/08/10/ordering-decimals-video/">https://corbettmaths.com/2012/08/10/ordering-decimals-video/</a>	Ordering Decimals – Video

## Topic Quiz

Test your skill with this online quiz / these online quizzes:

**Decimals:** <https://forms.gle/LpyaP3qBhiNXqTbk8>

**Fractions:** <https://forms.gle/zaTdatomWbc3fPgP6>

## Exam-Style Questions

Here are some examples of a typical exam question at this level

### **Q10. 2019**

Riya wants to buy a bookshelf to fit under a window.

The bottom of the window is 1.43m from the floor.

Riya buys the tallest bookshelf that will fit.

Which bookshelf does she buy?

**1.3m**

**1.39m**

**1.35m**

**1.62m**

**0.95m**

**1.4m**



### **Q13. 2019**

Riya wants curtains in her room. These are the lengths of curtains in metres.

**1.0m**

**1.25m**

**1.5m**

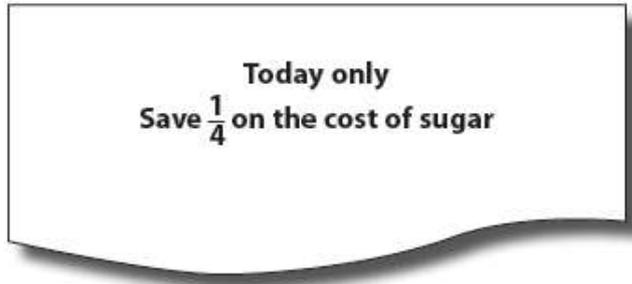
The lengths follow a pattern. Riya wants the next length up from 1.5m.

What length of curtains will Riya buy?



**Q1, 2017**

Stan sees this offer.



The normal cost of sugar is £56

What is  $\frac{1}{4}$  of £56?

(2)

## Answers

### Q10 & Q13, 2019

10	Indicates 1.4 (m) and no other	1	E3.8
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13	1.75 (m)	1	E3.9
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### Q1, 2017

Valid process to find $\frac{1}{4}$ of 56 e.g. 56 $\div$ 4 OR 56 $\div$ 2 and 28 $\div$ 2 follow through from their answer to 56 $\div$ 2	1 or
(£) 14	2

## Common Misconceptions – Do you make these mistakes?

- If fractions are part of a one whole, you can't get a fraction bigger than 1, moreover when you multiply two fractions the answer is always smaller
- If 5 is bigger than 4 then  $1/5$  is bigger than  $1/4$
- A pizza can be cut into 5 unequal sizes, each piece is still a fraction  $1/5$  one fifth
- If  $2/9 + 3/9 = 5/9$  then  $1/6 + 1/9 = 2/15$  of course



- Which is bigger 0.89 or 0.9? 0.89 of course eighty-nine sounds more than nine
- 3.25 hours represent 3 hours and twenty-five minutes
- If 0.1 represents 10% then 2.5 represents? Must be 25%!
- If rail fares are increased by 10%, then decreased by 10%, then rail fares must be back at the original price because +10% -10% , gets you back to where you started .
- Fractions, Decimals and Percentages, who needs these? I am never going to need these in my life? I mean everything is computerised for you? Right? You just google it and get the answer on your phone! It's a waste of time studying fractions, decimals and percentages.



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