

#FunSkills2019

Functional Skills 2019 monthly updates

A closer look at maths

Webinar 10 | June 2019



Welcome to webinar 10 – deep dive into maths



Amanda Kelly
Industry Manager



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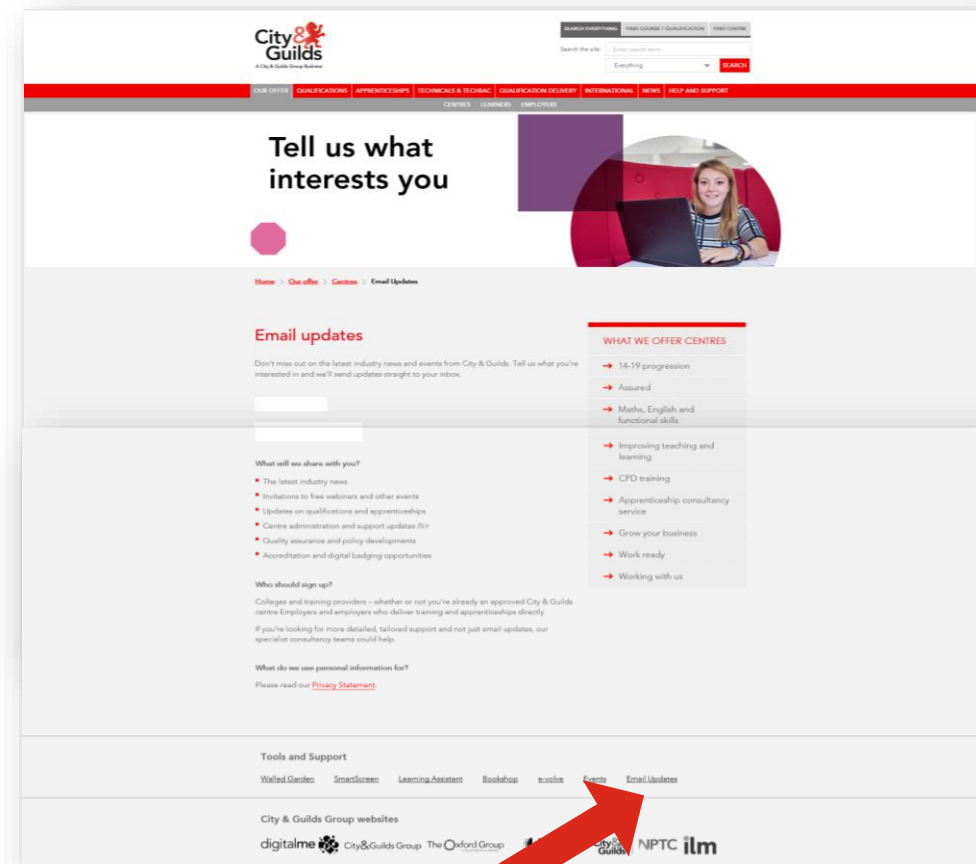
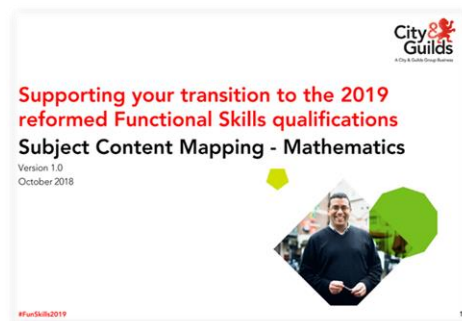
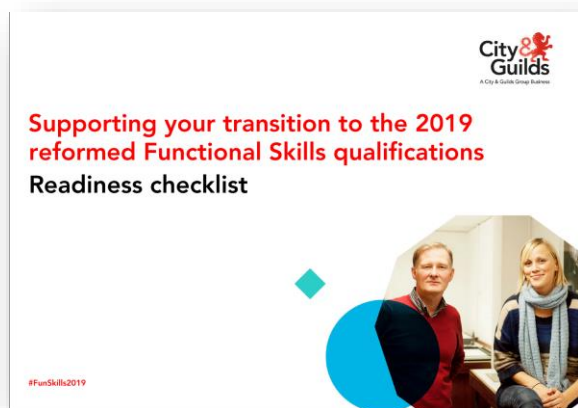
Paul Sceeny
Technical Advisor

Any questions?

As usual, please post your questions during the webinar.
We might not be able to answer them live, but if not we'll add to the FAQs.

New to these webinars?

If this is your first webinar, you can find the link to the recordings of **all** previous webinar on our **Functional Skills Updates** page.



Don't forget

To stay up-to-date, you need to sign up for our email alerts!



Latest news



Don't forget the **draft** samples assessments for all of our reformed FS qualifications are on our **current [Functional Skills \(3748\) qualification documents webpage](#)**.

They are available from a folder called **Functional Skills reform** in the **Additional documents** folder.



Places still available on these events - book your place:
bit.ly/CGMathsEnglishEvents

Day	Date	Location
Tuesday	16 July	Kendal College
Tuesday	30 July	PETA, Portsmouth
Thursday	8 August	City & Guilds office, Warrington
Tuesday	13 August	ILM office, Burntwood
Monday	19 August	City & Guilds office, London



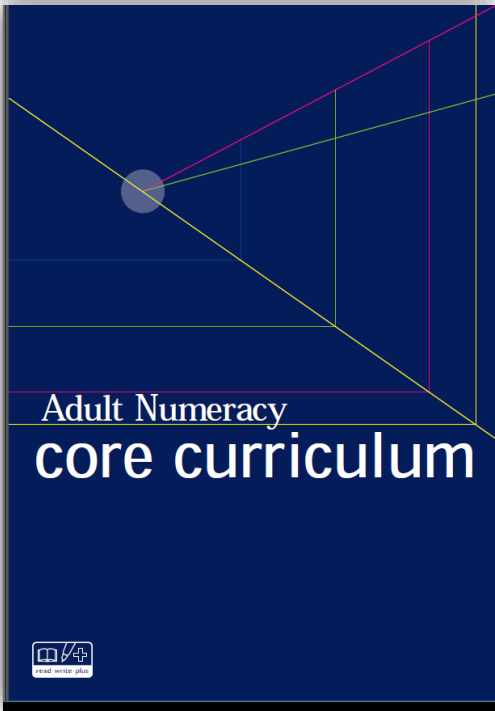
Transition...






Transition from legacy Functional Skills to new qualifications:

Date	FS Mathematics
31 August 2019	Last candidate registration date
30 April 2020	Final assessment date for internally assessed components (Entry level and Level 1-2 SLC)
31 May 2020	Final assessment date for Level 1-2
31 July 2020	Last date for EQA activity relating to Entry level
31 August 2020	Final certification date for legacy Functional Skills qualifications

Diving into Level 1 and Level 2 maths

Using the Adult Numeracy Core Curriculum



The Adult Numeracy Core Curriculum			The progression between curriculum elements		
Number: the progression between curriculum elements					
Entry Level					
					
Whole numbers	<p>N1E1.1 Count reliably up to 10 items</p> <p>N1E1.2 Read and write numbers up to 10, including zero</p> <p>N1E1.3 Order and compare numbers up to 10, including zero</p> <p>N1E1.4 Add single-digit numbers with totals to 10</p> <p>N1E1.5 Subtract single-digit numbers from numbers up to 10</p> <p>N1E1.6 Interpret $+$, $-$ and $=$ in practical situations for solving problems</p> <p>N1E1.7 Use a calculator to check calculations using whole numbers</p>	<p>N1E2.1 Count reliably up to 20 items</p> <p>N1E2.2 Read, write, order and compare numbers up to 100</p> <p>N1E2.3 Add and subtract two-digit whole numbers</p> <p>N1E2.4 Recall addition and subtraction facts to 10</p> <p>N1E2.5 Multiply using single-digit whole numbers</p> <p>N1E2.6 Approximate by rounding to the nearest 10</p> <p>N1E2.7 Use and interpret $+$, $-$, \times and $=$ in practical situations for solving problems</p> <p>N1E2.8 Use a calculator to check calculations using whole numbers</p>	<p>N1E3.1 Count, read, write, order and compare numbers up to 1000</p> <p>N1E3.2 Add and subtract using three-digit whole numbers</p> <p>N1E3.3 Recall addition and subtraction facts to 20</p> <p>N1E3.4 Multiply two-digit whole numbers by single-digit whole numbers</p> <p>N1E3.5 Recall multiplication facts (e.g. multiples of 2, 3, 4, 5, 10)</p> <p>N1E3.6 Recall multiplication facts by single-digit whole numbers and interpret remainders</p> <p>N1E3.7 Approximate by rounding numbers less than 1000 to the nearest 10 or 100</p> <p>N1E3.8 Estimate answers to calculations</p> <p>N1E3.9 Use and interpret $+$, $-$, \times, \div and $=$ in practical situations for solving problems</p>	<p>N1E4.1 Read, write, order and compare numbers, including large numbers</p> <p>N1E4.2 Recognise negative numbers in practical contexts (e.g. temperatures)</p> <p>N1E4.3 Add, subtract, multiply and divide using efficient written methods</p> <p>N1E4.4 Multiply and divide whole numbers by 10 and 100</p> <p>N1E4.5 Recall multiplication facts up to 10×10 and make connections with division facts</p> <p>N1E4.6 Recognise numerical relationships (e.g. multiples and squares)</p> <p>N1E4.7 Work out simple ratio and direct proportion</p> <p>N1E4.8 Approximate by rounding</p> <p>N1E4.9 Estimate answers to calculations</p>	<p>N1E5.1 Read, write, order and compare positive and negative numbers of any size in a practical context</p> <p>N1E5.2 Carry out calculations with numbers of any size using efficient methods</p> <p>N1E5.3 Calculate ratio and direct proportion</p> <p>N1E5.4 Evaluate expressions and make substitutions in given formulae in words and symbols to produce results</p>
Fractions, decimals and percentages		<p>N2E2.1 Read, write and compare halves and quarters of quantities</p> <p>N2E2.2 Find halves and quarters of small numbers of items or shapes</p>	<p>N2E3.1 Read, write and understand common fractions (e.g. $\frac{1}{2}$, $\frac{1}{4}$)</p> <p>N2E3.2 Recognise and use equivalent forms (e.g. $\frac{1}{2} = \frac{2}{4}$)</p> <p>N2E3.3 Read, write and understand decimals up to two decimal places in practical contexts (such as: common measures to one decimal place, e.g. 1.5 m; money in decimal notation, e.g. £2.37)</p> <p>N2E3.4 Use a calculator to calculate using whole numbers and decimals to solve problems in context, and to check calculations</p>	<p>N2E4.1 Read, write, order and compare common fractions and mixed numbers</p> <p>N2E4.2 Find parts of whole number quantities or measurements (e.g. $\frac{1}{2}$ of 10)</p> <p>N2E4.3 Recognise equivalences between common fractions, percentages and decimals (e.g. 50% = $\frac{1}{2}$, 0.5 = $\frac{1}{2}$) and use these to find part of whole-number quantities</p> <p>N2E4.4 Read, write, order and compare decimals up to three decimal places</p> <p>N2E4.5 Add, subtract, multiply and divide decimals up to two places</p> <p>N2E4.6 Multiply and divide decimals by 10, 100</p> <p>N2E4.7 Approximate decimals by rounding to a whole number or two decimal places</p> <p>N2E4.8 Read, write, order and compare simple percentages, and understand simple percentage increase and decrease</p> <p>N2E4.9 Find simple percentage parts of quantities and measurements</p> <p>N2E4.10 Find simple percentage increase and decrease</p> <p>N2E4.11 Use a calculator to calculate efficiently using whole numbers, fractions, decimals and percentages</p>	<p>N2E5.1 Use fractions to order and compare amounts or quantities</p> <p>N2E5.2 Identify equivalences between fractions, decimals and percentages</p> <p>N2E5.3 Evaluate one number as a fraction of another</p> <p>N2E5.4 Use fractions to add and subtract amounts or quantities</p> <p>N2E5.5 Order, approximate and compare decimals when solving practical problems</p> <p>N2E5.6 Add, subtract, multiply and divide decimals up to three places</p> <p>N2E5.7 Order and compare percentages and understand percentage increase and decrease</p> <p>N2E5.8 Find percentage parts of quantities and measurements</p> <p>N2E5.9 Evaluate one number as a percentage of another</p> <p>N2E5.10 Use a calculator to calculate efficiently using whole numbers, fractions, decimals and percentages</p>

Reference numbers



Level 1-2 exams



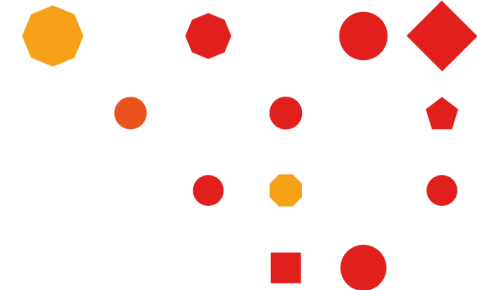
Design/Approach

- **Externally set and marked.**
- **One paper with two sections**
 - non-calculator
 - calculator.
- **Overall time allowance**
 - 1hr 45 min.
- **Coverage**
 - 80-90% of subject content statements.



Delivery

- Register for levels 1 & 2 using
 - **4748-04.**
- Both sections must be taken together.
- Live assessments booked via Walled Garden.
- Paper-delivered or on-screen.



Assessment specification: Level 1 and Level 2

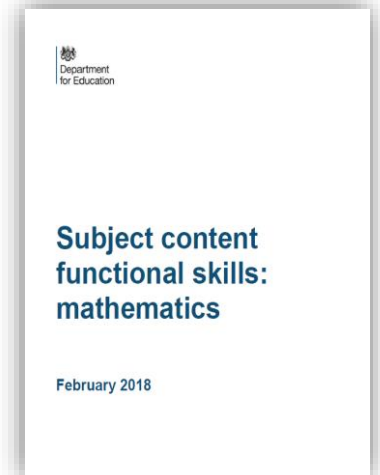
	Total marks	Calculator (75%)	Non-Calculator (25%)	Underpinning knowledge (25%)	Problem solving (75%)	Item types	Number of questions
Section 1 Non-calculator	15	0	15	10	5	Multiple choice; Short answer fixed response	15
Section 2 Calculator	45	45	0	5	40	Multiple Choice; Short answer fixed response; Short answer open response	15
Totals	60	45	15	15	45		30



Level 1 new content

- Follow the order of precedence of operators (SCS7)
- Calculate discounts in multiples of 5% on amounts of money (SCS19)
- Interpret plans, elevations and nets of simple 3-D shapes (SCS25)
- Use angles when describing position and direction, and measure angles in degrees (SCS26)

[See gov.uk site for Subject Content document](#)



Examples of how this new content may be assessed...

Calculate discounts in multiples of 5% on amounts of money (SCS19)

A customer wants to buy a coat in a clothes shop. The price ticket says £45

He has a voucher for 30% off.

How much money will he have off the price of the coat?

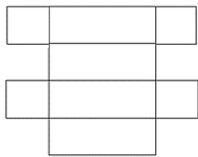
£ _____

(1 mark)

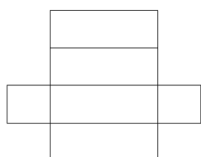
Which one of these nets will fold to make a cube?

(tick one box)

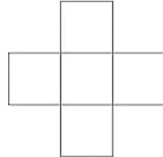
A

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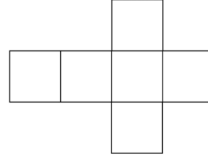
B

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C

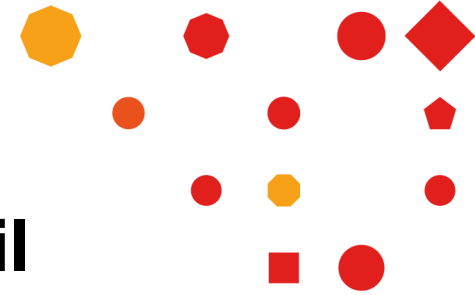
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D

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(1 mark)

Interpret plans, elevations and nets of simple 3-D shapes (SCS25)



Level 1 content assessed more explicitly, or in greater detail

Recognise and use positive and negative numbers (SCS2)

N1/L1.2

Use multiplication facts and make connections with division facts (SCS4)

N1/L1.5

Calculate the squares of one-digit and two-digit numbers (SCS6)

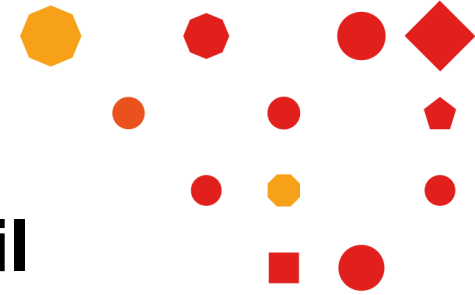
N1/L1.6

Add, subtract, multiply and divide decimals up to two decimal places (SCS11)

N2/L1.5

Approximate by rounding to a whole number or to one or two decimal places (SCS12)

N2/L1.7



Level 1 content assessed more explicitly, or in greater detail

Calculate percentages of quantities, including simple percentage increases and decreases by 5% and multiples thereof (SCS14)

N2/L1.10

Estimate answers to calculations using fractions and decimals (SCS15)

N1/L1.9

Recognise and calculate equivalences between common fractions, percentages and decimals (SCS16)

N2/L1.3

Calculate simple interest in multiples of 5% on amounts of money (SCS18)

Suggested activity for N1/L2

Read, write, order and compare percentages in whole numbers (SCS13)

N2/L1.1, N2/L1.3 and N2/L1.4



Level 1 content assessed more explicitly, or in greater detail

Group discrete data and represent grouped data graphically (SCS28)

HD1/L1.2

Use equally likely outcomes to find the probabilities of simple events and express them as fractions (SCS31)

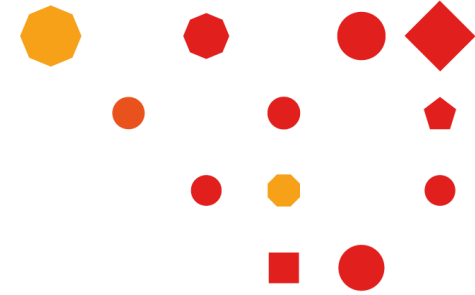
HD2/L1.1 and HD2/L1.2

Calculate the volumes of cubes and cuboids (SCS23)

MSSL1.10

Represent discrete data in tables, diagrams and charts including pie charts, bar charts and line graphs (SCS27)

HD1/L1.2



Types of questions

Q1.

$$4 + 3 \times 2 =$$

(1 mark)

Group discrete data and represent grouped data graphically (SCS28)

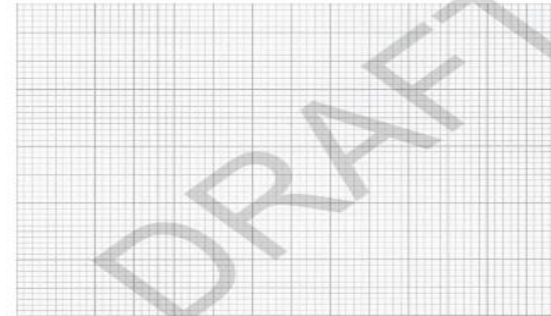
Add, subtract, multiply and divide decimals up to two decimal places (SCS11)

Q14.

This table shows the number of orders a sales person got in six months.

Month	Number of orders
January	150
February	155
March	170
April	160
May	180
June	200

Draw a line graph to show this information.



Level 2 new content

- Calculate percentage change (any size increase and decrease), and original value after percentage change (SCS6)
- Follow the order of precedence of operators, including indices (SCS12)
- Calculate using compound measures including speed, density and rates of pay (SCS13)
- Use coordinates in 2-D, positive and negative, to specify the positions of points (SCS19)
- Draw 3-D shapes to include plans and elevations (SCS21)
- Calculate values of angles and/or coordinates with 2-D and 3-D shapes (SCS22)
- Estimate the mean of a grouped frequency distribution from discrete data (SCS24)
- Work out the probability of combined events including the use of diagrams and tables, including two-way tables (SCS26)
- Draw and interpret scatter diagrams and recognise positive and negative correlation (SCS28)

Examples of how this new content may be assessed...

Calculate percentage change (any size increase and decrease), and original value after percentage change.

Q7.

A newspaper report says that a company made £700,000 profit last year. It says this was 12% more than the year before.

Work out how much profit the company made the year before.

Q11.

This table shows how much a garage pays its staff.

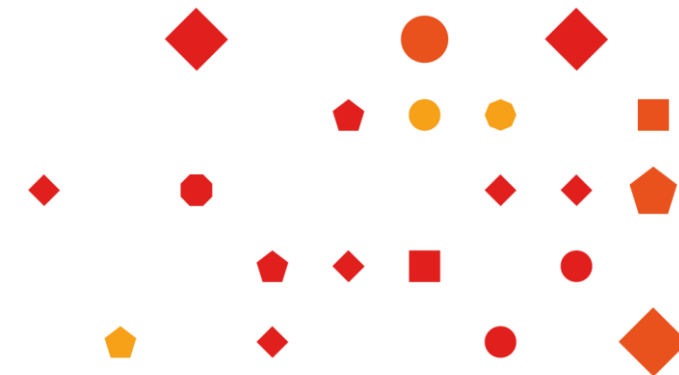
Pay rates	
Working day	Rate
Monday to Friday	Normal rate
Saturday or Sunday	1¼ x normal rate

Last week, a mechanic worked 7½ hours each day from Monday to Saturday. She did not work on Sunday.

Her normal rate of pay is £10.80 an hour.

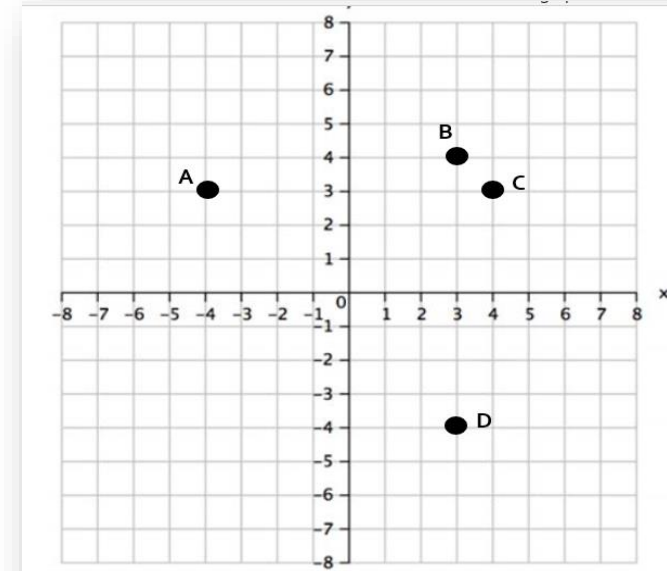
Work out her **total** pay for last week.

Calculate using compound measures including speed, density and rates of pay.



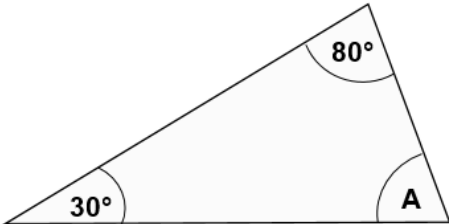
More examples...

Use coordinates in 2-D, positive and negative, to specify the positions of points



Which point is at (3,4)?

Q8.



Calculate the size of angle A.

_____°
(1 mark)

Calculate values of angles and/or coordinates with 2-D and 3-D shapes:

More examples of how new content might be assessed

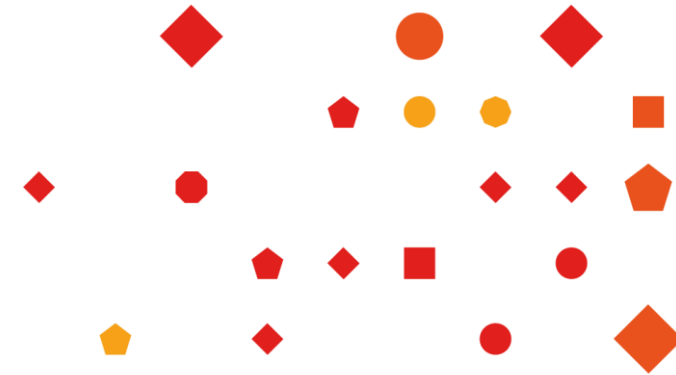
Estimate the mean of a grouped frequency distribution from discrete data:

Q10.

This table shows information about the number of photos a photographer's customers ordered last week.

Photos ordered	Number of customers
0 - 9	30
10 - 19	10
20 - 29	8
30 - 39	2
40 - 49	0
50 - 59	0

What was the average number of photos per customer?
Give your answer to the nearest whole number.





Greater clarity and more detail

Work out percentages of amounts and express one amount as a percentage of another (SCS5)

N2/L2.8 and N2/L2.9

Order, add, subtract and compare amounts or quantities using proper and improper fractions and mixed numbers (SCS7)

**N2/L2.1 and N2/L2.4
also N2/L1.1**

Express one number as a fraction of another (SCS8)

N2/L2.2

Order, approximate and compare decimals (SCS9)

N2/L2.5



More clarity and depth in content

**Add, subtract,
multiply and divide
decimals up to three
decimal places
(SCS10)**

N2/L2.6

**Use formulae to find
volumes and surface areas
of 3-D shapes including
cylinders (formulae to be
given for 3-D shapes other
than cylinders) (SCS17)**

**MSS1/L2.7, MSS1/L2.8 and
MSS1/L2.9**

**Calculate amounts of
money, compound
interest, percentage
increases, decreases
and discounts
including tax and
simple budgeting
(SCS13)**

N2/L2.7 and N2/L2.8

Information

OpenAssess – launched 1 May 2019

OpenAssess is our new, free, on-screen practice test tool – developed for Functional Skills exams

- It's a parallel, open, version of SecureAssess (e-volve)
 - the platform we use for live on-screen tests.
- It hosts our sample on-screen Functional Skills external assessments
 - instead of these just being on our website.
- It will record your learners' practice test attempts, and store their responses
 - so you can access and mark them afterwards
 - allows you to provide feedback and judge their readiness for the live test.
- Currently the **current** (3748) Functional Skills sample assessments are available.
- Sample versions of the reformed (4748) Functional Skills exams will be available through OpenAssess from September.

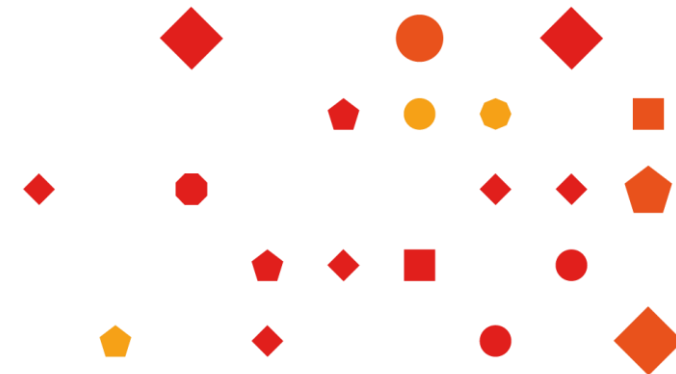


Sample assessments

Published sample assessments for Maths and English from Entry 1 to Level 2

- To access them visit the **current** (3748) [Functional Skills qualification documents page](#):
- Select the 'Additional Documents' dropdown
- Then select 'Functional Skills reform'

NB: the assessment papers and mark schemes have been published as **one** document.



Questions

Any comments, questions or feedback...

fsreform@cityandguilds.com

Keeping up with developments

#FunSkills2019 webinars every month - right through to the summer

- You'll get an email reminder each month as long as you've signed up.
- Recordings of **every** session to-date (apart from the special phonics webinar) available from the [Functional Skills updates](#) page.

Next month's webinar

- Wednesday 3 July 2019



Thank you

For more information about the Functional Skills reform programme, please visit

cityandguilds.com/mathsandenglish

Then follow links to [Functional Skills updates](#).

There's a dedicated email address:

fsreform@cityandguilds.com

Use **#FunSkills2019** to join the social media conversation:

- follow Amanda [@MathsEnglish_CG](#)
- follow Paul [@PaulSceeny_CG](#)
- follow Katherine [@KatherineC_CG](#)