

# Functional Skills Mathematics Assessment

## Buying a mobile phone

### Entry 3

#### Assessment Guidelines

This assessment covers the whole of the Functional Skills standards and a sample of the coverage and range.

Functional Skills Standard / Performance	Functional Skills Coverage and Range	Task	Marks Allocated
<p>Understand practical problems in familiar and accessible contexts and situations.</p> <p>Begin to develop own strategies for solving simple problems.</p> <p>Select and apply mathematics to obtain answers to simple given practical problems that are clear and routine.</p> <p>Interpret and communicate solutions to practical problems in familiar contexts and situations</p> <p>Use given checking procedures.</p>	Understand and use whole numbers to 1000		
	Complete written calculations with two digit numbers		
	Add and subtract using three-digit numbers.	6, 11	4
	Solve whole number problems involving multiplication and division	3, 7	4
	Use mental recall of multiplication tables 2, 3, 4, 5 and 10		
	Round to the nearest 10 or 100		
	Understand and use simple fractions	5	5
	Understand decimals to two decimal places in practical contexts	1b, 4	3
	Recognise and describe number patterns	7	1
	Understand, estimate, measure and compare length, capacity, weight and temperature		
	Complete simple mental calculations involving money and measures	6, 10	2
	Recognise, name and draw simple 2d and 3d shapes		
Use metric and imperial units in everyday situations.	9a, 9b, 12	4	



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	Extract and use information from lists, tables, simple charts and graphs and make comparisons of this information		4
	Check accuracy of calculations and results	1a, 2, 8a, 8b	3
	Present findings to make sense to others	6b, 7, 11	11
		12, 8c	

#### Support for learner

At this level tutors are only allowed to read the questions to the learner. Realia may be used to replace the images in the paper, e.g. mobile phones, boxes if this will support the learner to visualise the task. No further support is allowed.

#### Contextualisation and Marking of the Assessment

Centres may contextualise the assessment so that the learners are not disadvantaged because of their lack of knowledge about the topic, but centres must take care that if they change the assessment, it still covers the whole of the standards. Learners can take the assessment when they, and the tutor, feel they are ready. The assessment should take place under supervised conditions. The assessments may be conducted on a one to one basis or within a group. **The assessment should take no longer than one and a half hours.**

**Where an answer gives marks for working out and the learner only gives the correct response, the learner will lose the marks for working out or the marks for the type of calculation e.g. subtraction and will only gain the marks for the answer. Therefore, out of a possible 3 marks only 1 may be allocated.**

Calculators are allowed.



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Task and Instructions	Answer	Mark Allocated	Learner Mark																		
<b>Task 1</b> a. How many phones have cameras? b. Show this as a fraction.	Three  $\frac{3}{5}$ Allow follow through from 1a.	1  1																			
<b>Task 2</b> Which has the cheapest rental per month?	Motorola	1																			
<b>Task 3</b> How much will it cost per month to buy two Sony phones?	Marks Allocated:  1 mark for showing working out – either 19x2 or 19 add 19 or any other method  1 mark for correct answer - £38 ( <b>must</b> have pound sign)	1  1																			
<b>Task 4</b> If you have a Nokia and you use a quarter of your texts in a month, how many texts would you use?	Marks allocated:  1 mark for showing $100 \div 4 =$ OR some way of showing half of 100 then half again, e.g. $\div 2$ then $\div 2$  1 mark for 25	1  1																			
<b>Task 5</b> Round the weights of each of the phones to the nearest 10 grams.	<table border="1"> <thead> <tr> <th>Mobile Phone</th> <th>Weight in grams</th> <th>Rounded to nearest 10 grams</th> </tr> </thead> <tbody> <tr> <td>Nokia</td> <td>175</td> <td>180</td> </tr> <tr> <td>Samsung</td> <td>217</td> <td>220</td> </tr> <tr> <td>Motorola</td> <td>283</td> <td>280</td> </tr> <tr> <td>LG</td> <td>164</td> <td>160</td> </tr> <tr> <td>Sony</td> <td>403</td> <td>400</td> </tr> </tbody> </table>	Mobile Phone	Weight in grams	Rounded to nearest 10 grams	Nokia	175	180	Samsung	217	220	Motorola	283	280	LG	164	160	Sony	403	400	5 marks total – one per correct answer	
Mobile Phone	Weight in grams	Rounded to nearest 10 grams																			
Nokia	175	180																			
Samsung	217	220																			
Motorola	283	280																			
LG	164	160																			
Sony	403	400																			



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<p><b>Task 6</b> 6a. How much heavier is the Sony than the Nokia?</p> <p>6b. Show how you can check that your answer is correct.</p>	<p>Marks allocated:</p> <p>1 mark for identifying Nokia 175 grams and Sony is 403 grams</p> <p>1 mark for subtracting</p> <p>1 mark for correct response 228 (grams) – grams not required for mark to be awarded</p> <p>Reverse calculation shown: <math>228 + 175 = 403</math>  OR estimating by rounding <math>230 + 180 = 410</math></p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	
<p><b>Task 7</b> You buy the Nokia phone. In the first month, you use all 100 free texts and use <b>thirty six</b> more texts. You have to pay <b>5p</b> per text when you have used all your free texts. How much more will you have to pay? Give your answer in pounds and pence, e.g. £5.60 Show your working.</p> <p>Show how you can check that your answer is correct.</p>	<p>Marks allocated:</p> <p>1 mark for multiplying (accept repeated addition) <math>36 \times 5</math></p> <p>1 mark for correct answer – 180 (pence)</p> <p>1 mark for changing to pounds - £1.80 – mark only awarded if written in <b>pounds and pence</b>.</p> <p>Accept any suitable method of checking including reverse calculation:  <math>£1.80 \div 5 = 36</math>  OR estimating <math>200 \div 5 = 40</math></p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	
<p><b>Task 8a</b> In which month do you use the least number of texts?</p> <p><b>Task 8b</b> In how many months do you use less than 110 texts?</p>	<p>June</p> <p>Four</p>	<p>1</p> <p>1</p>	



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<p><b>Task 8c</b> Use the graph paper to show the text usage from July to December</p>	<p>Mark allocation One mark for each bar - 6 marks in total  One mark for suitable title  One mark for x axis label  One mark for y axis label  One mark for an accurate scale</p>	<p><b>6 maximum</b>  1  1  1  1</p>	
<p><b>Task 9</b> 9a. What shape is the shape below?  9b. What shape is Face A?</p>	<p>Cuboid  Rectangle</p>	<p>1  1</p>	
<p><b>Task 10</b> How many grams is this to the nearest 10 grams?</p>	<p>760 grams</p>	<p>1</p>	
<p><b>Task 11</b> 11a. The Nokia phone weighs 175 grams. Use your answer to question 10 to work out how much the box weighs. Show your working out.  11b. Show how you could check your answer.</p>	<p>One mark for correct choice of calculation – subtraction  One mark for correct answer – 585 grams (allow follow through from Q10)  One mark for any suitable check, e.g. reverse calculation – <math>585 + 175</math> (or using follow through)</p>	<p>1  1  1</p>	



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<p><b>Task 12</b>          12. The phone measures 12 centimetres long and 5 centimetres wide. Use a ruler to draw the shape of the phone. Label it with the measurements</p>	<p>Draws shape 12 centimetres by 5 centimetres – 1 mark for length and 1 mark for width. Allow <math>\pm 2</math> mm each side.</p> <p>Labelled correctly (both measurements needed for mark)</p>	<p><b>1 length</b>   <b>1 width</b>   <b>1 mark for labels</b></p>	
<p><b>Total Marks Available</b></p>		<p><b>41</b></p>	
<p><b>Pass mark 28 out of 41</b></p>			

Assessor Name \_\_\_\_\_ Assessor Signature \_\_\_\_\_

IV Name (if sampled) \_\_\_\_\_ IV signature \_\_\_\_\_

EV Name (if sampled) \_\_\_\_\_ EV signature \_\_\_\_\_

