ADDITIONAL MATERIALS
A calculator.

INSTRUCTIONS TO CANDIDATES
Use black ink or black ball-point pen.
Write your name, centre number and candidate number in the spaces at the top of this page.
Answer all questions.
Write your answers in the spaces provided in this booklet.
Remember to check your answers.
1. One day you and 6 friends decide to go on a day out. You decide to have a picnic. Jake, in the local sandwich shop, says it will take him 3 minutes to make each sandwich you order.

You need 7 sandwiches to be made for collection by 10:25 a.m.

You look at your watch.

If you order 7 sandwiches, would they be ready in time? Explain your answer by working out and giving any useful times. [5]
2. Jake, in the sandwich shop, has recorded the sales of different sandwich fillings. He wants to list the 2 best-selling sandwich fillings.

Jake wants to say roughly how many were sold. For example, if they have 231 of tuna this could be written:

```
About 200 tuna sandwiches sold
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Here is the sales list:

<table>
<thead>
<tr>
<th></th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>cheese and tomato</td>
<td>289</td>
</tr>
<tr>
<td>cheese and onion</td>
<td>523</td>
</tr>
<tr>
<td>ham salad</td>
<td>686</td>
</tr>
<tr>
<td>salmon</td>
<td>442</td>
</tr>
</tbody>
</table>
Write roughly how many sandwiches with each type of sandwich filling have been sold.

Name the best-selling and the second best-selling sandwich fillings. [4]

Roughly ............... cheese and tomato

Roughly ............... cheese and onion

Roughly ............... ham salad

Roughly ............... salmon

Best-selling sandwich filling is ...................................................

Second best-selling sandwich filling is ........................................
3. On your day out, you and your friends go on a river trip.

Special offer today only
River trips

Pay for one person and one other person goes for half price

Price per person £4.60

You and your 6 friends decide to go on this river trip.

How much will this cost altogether for all 7 people to go?
4. On the river trip there is an offer from an afternoon food and drinks menu. The menu has drinks, luxury treats and sweet treats.

<table>
<thead>
<tr>
<th>Afternoon menu</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drinks</strong></td>
</tr>
<tr>
<td>Tea £1.10</td>
</tr>
<tr>
<td>Coffee £1.20</td>
</tr>
<tr>
<td>Juice 90p</td>
</tr>
<tr>
<td><strong>Luxury treat</strong></td>
</tr>
<tr>
<td>Scone with jam £3.40</td>
</tr>
<tr>
<td>Toasted Teacake £2.50</td>
</tr>
<tr>
<td><strong>Sweet treat</strong></td>
</tr>
<tr>
<td>Cupcake £2.10</td>
</tr>
<tr>
<td>Muesli bar £1.90</td>
</tr>
</tbody>
</table>

Each of the friends selects a drink, a luxury treat and a sweet treat from the menu. Coral pays the least amount possible for her choice. Harry pays the greatest amount possible for his choice.

How much more did Harry pay than Coral for his afternoon 2 treats and drink? [8]
5. You see the following whilst on the river trip.

Draw lines connecting **each** of the following items to its correct 2D or 3D name. [2]

- SPHERE
- CUBOID
- CYLINDER
- CONE
6. Rory and Gary want to estimate the length of the deck of the river boat.

Rory thinks that each pace he makes is approximately 0·8 m.
Gary thinks that each pace he makes is approximately 0·75 m.

Rory and Gary each pace the length of the deck of the boat.
Rory takes 30 paces.
Gary takes 36 paces.

They agree an overall estimate for the length of the boat to be half way between their two estimates.
What is this overall estimate for the length of the river boat?

How could you and your friends check the overall estimate without actually measuring the length with a measuring tape?

7. Shireen says

There are four times as many female ducks as male ducks on this river.

Coral and Rory stand on opposite sides of the boat. During the trip they each count the number of male and female ducks they see.

<table>
<thead>
<tr>
<th>Female duck</th>
<th>Male duck</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of ducks</td>
<td>0 0 4 8 12 16 20</td>
</tr>
</tbody>
</table>

Coral’s results | Rory’s results

- Coral’s results: Female 0, Male 0, Female 4, Male 8, Female 12, Male 16, Female 20
- Rory’s results: Female 0, Male 0, Female 4, Male 8, Female 12, Male 16, Female 20
Coral says from what she has seen, Shireen is **not** correct.
Would Coral be right in saying this?
Give a reason for your answer, giving the number of ducks Coral has seen.

[2]

Looking at both Coral and Rory’s results **altogether**, is Shireen correct?
You must show your working giving the number of ducks.

[5]
FUNCTIONAL SKILLS

0860/E3-A

MATHEMATICS

Entry 3

Assessment: A Day Out

Marking Scheme + Candidate and Teacher Declaration

Assessment window:

25 April 2016 – 20 May 2016

Marking Guidance

The tasks should be internally assessed.

The marking guidance does not detail every possible outcome, hence a teacher comment column is provided to briefly describe the candidate's response.

Where a candidate's response differs from the guidance, the teacher should determine "the best fit" bearing in mind the marking guidance.

Wherever possible, evidence must be collated or assessors must confirm that candidates have successfully met the marking criteria.

Please ensure that all pages for each candidate are attached securely.

Candidate and Teacher Declaration

After completing the assessment, the candidate and teacher must sign the declaration below.

NOTICE TO CANDIDATE

The work you submit for assessment must be your own. If you copy from someone else, allow another candidate to copy from you, or if you cheat in any other way, you may be disqualified from at least the subject concerned.

Declaration by candidate

I have read and understood the Notice to Candidate (above). I have completed this assignment without assistance other than that which my teacher has explained is acceptable within the specification.

Candidate's Signature:

Declaration by teacher

I confirm that the candidate’s work was conducted under the conditions laid out by the specification. I have authenticated the candidate’s work and am satisfied that to the best of my knowledge the work produced is solely that of the candidate.

Teacher's Signature: Date:
<table>
<thead>
<tr>
<th>Q</th>
<th>Entry 3 Assessment - A Day Out</th>
<th>Mark</th>
<th>Mark Awarded</th>
<th>Teacher's Comments (where appropriate)</th>
</tr>
</thead>
</table>
| 1 | Award 1 mark for reading the watch time as 10:08, 10:09 or 10:10 (am) OR difference between these times and 10:25 stated  
Award 2 marks for 21 minutes needed to make the sandwiches, or calculation of the correct number of sandwiches possible in the time difference OR  
Award 1 mark for attempting to work out 7 lots of 3 minutes, or equivalent, or attempt to calculate the number of sandwiches possible in the time difference  
Award 2 marks for conclusion 'no' based on suitable calculation and shows the need for more minutes, e.g. need 21 minutes OR  
Award 1 mark for sight of time difference 15, 16 or 17 minutes appropriately | 1 | 2 | 2 |
| 2 | Award 2 marks for correctly writing roughly how many of all of the sandwich fillings listed, these could be to the nearest 100 or to the nearest 10 OR  
Award 1 mark for correctly writing roughly how many of at least 2 of the sandwich fillings, these could be to the nearest 100 or to the nearest 10  
Award 2 marks for correctly selecting the best-selling and second best-selling sandwich fillings (1st ham salad and 2nd cheese and onion) OR  
Award 1 mark for correctly selecting the best-selling sandwich fillings (ham salad) | 2 | 2 | [4] |
| 3 | Award 1 mark for half of £4.60 as £2.30  
Award 2 marks for deciding 4 people will pay full price and 3 people will pay half price, OR  
Award 1 mark for deciding some people will pay full price and some people will pay half price  
Award 3 marks for £25.30 total cost, OR  
Award 2 marks for attempting to calculate 4×£4.60 + 3×£2.30 OR correct calculation for their number of people at full and half price provided there are at least 6 people, OR  
Award 1 mark for sight of £6.90 (for every two people) which may be embedded in another calculation | 1 | 2 | 3 | [6] |
<table>
<thead>
<tr>
<th>Q</th>
<th>Entry 3 Assessment - A Day Out</th>
<th>Mark</th>
<th>Mark Awarded</th>
<th>Teacher's Comments (where appropriate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Coral</td>
<td></td>
<td>2</td>
<td>Award 2 marks for 90p, £2.50 and £1.90, OR Award 1 mark for juice, toasted teacake and muesli bar selected Award 1 mark for £5.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Award 2 marks for £1.40, or the correct difference between their costs for Coral and Harry OR Award 1 mark for attempt to calculate the difference between their amounts paid by Coral and Harry</td>
</tr>
<tr>
<td></td>
<td>Harry</td>
<td></td>
<td>2</td>
<td>Award 2 marks for £1.20, £3.40 and £2.10, OR Award 1 mark for coffee, scone and cupcake selected Award 1 mark for £6.70</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Award 2 marks for £1.40, or the correct difference between their costs for Coral and Harry OR Award 1 mark for attempt to calculate the difference between their amounts paid by Coral and Harry</td>
</tr>
<tr>
<td></td>
<td>OR Alternative looking at difference in cost:</td>
<td></td>
<td>2</td>
<td>Award 2 marks for drinks difference 30p, OR Award 1 mark for attempt to subtract 90p from £1.20</td>
</tr>
<tr>
<td></td>
<td>OR Alternative looking at difference in cost:</td>
<td></td>
<td></td>
<td>Award 2 marks for luxury treat difference 90p, OR Award 1 mark for attempt to subtract £2.50 from £3.40</td>
</tr>
<tr>
<td></td>
<td>OR Alternative looking at difference in cost:</td>
<td></td>
<td></td>
<td>Award 2 marks for sweet treat difference 20p, OR Award 1 mark for attempt to subtract £1.90 from £2.10</td>
</tr>
<tr>
<td></td>
<td>OR Alternative looking at difference in cost:</td>
<td></td>
<td></td>
<td>Award 2 marks for £1.40, or their sum of the differences OR Award 1 mark for attempt to sum the three differences in costs</td>
</tr>
<tr>
<td>5</td>
<td>Award 2 marks for 3 or 4 correct connections, OR Award 1 mark for 2 correct corrections</td>
<td></td>
<td>2</td>
<td>Ice cream cone – CONE Water pipe – CYLINDER Football – SPHERE Card board box - CUBOID</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Award 2 marks for 3 or 4 correct connections, OR Award 1 mark for 2 correct corrections</td>
</tr>
</tbody>
</table>
### Award 2 marks for (30 × 0.8) 24m, OR Award 1 mark for attempt 30 × 0.8

- Award 2 marks for (36 × 0.75) 27m, OR Award 1 mark for attempt 36 × 0.75
- Award 3 marks for estimate agreed 25.5m, OR Award 2 mark for finding and halving difference between their lengths, OR Award 1 mark for finding the difference between their lengths
- Award 1 mark for check idea, e.g. someone else pacing the deck or Rory or Gary paces the deck again as a repeat experiment

### Award 2 marks for stating or implying Coral is correct from what she sees (or Shireen is not correct) AND with sight of 19 and 5 or 4×5 = 20 (not 19), or similar, OR Award 1 mark for sight of 19 and 5

- Award 1 mark for deciding to find the total number of female ducks and the total number of male ducks
- Award 2 marks for total number female (19+13) 32 ducks and male (5+3) 8 ducks, OR Award 1 mark for total number female (19+13) 32 ducks or male (5+3) 8 ducks
- Award 2 marks for conclusion that Shireen is correct (may be implied) because 4 lots of 8 is 32, or equivalent, OR Award 1 mark for 4 lots of 8 is 32, or equivalent

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**Total out of a possible of 40 marks**

**40**