<table>
<thead>
<tr>
<th>Guidance on the use of codes for this mark scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>cao</td>
</tr>
<tr>
<td>oe</td>
</tr>
<tr>
<td>ft</td>
</tr>
<tr>
<td>Question</td>
</tr>
<tr>
<td>----------</td>
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</tbody>
</table>
| 1        | 2 kg = 2000 g  
2000 ÷ 400 = 5  
5 x 30 = 150 min  
150 min = 2 hours 30 mins  
Plus 20 mins rest give  
2 hours 50 min  
So if it is put on at 6:30 pm it will be ready at 9:20 pm. | No, she needs to put it on earlier. | M1 | 3 | M1 for method of finding how many lots of 30 minutes are needed  
A1 cao  
M1 for method of finding total time  
A1 cao  
B1 ft  
B1 No and a clear summing up of why it won’t be ready | B |
| 2        | 2 + 1 = 3  
60 ÷3 = 20  
2 x 20 = 40  
She spends £40 on clothes | £40 | M1 | M1 | M1 for adding ratios to 3  
M1 for method of finding the 2 share | B |
| 3 a      | 25  
150  
1 − 0.17 = 0.83 = 83%  
Or 150 − 25 = 125  
125  
150  
= 0.83 = 83%(to 2 dp) | 83% | M1 | M1 | M1 for method of finding part of a ratio  
A1 answer correct to 2 sf or more | B |
|          | 150  
4  
= 38 to nearest car are red | Yes | M1 | B1 | M1 for diving by 4  
B1 showing nearest whole number is more than 25 | |
| c        | 17% green + 25% red  
Total 42% | No, she is not right. | M1 | B1 | M1 adding both together in some way  
B1 for no with justification | |
| d        | Less than half the cars are accounted for, so there could be one third silver.  
150 ÷3 = 50 which is a whole number. | Yes, he could be right. | M1 | B1 | M1 for method of looking at how many available to be silver  
B1 for yes with suitable justification | |
| 4        | One day is 60 x 24 = 1440 minutes  
1440 ÷ 5 = 288 minutes  
This is less than 360 minutes. | 360 minutes is longer. | M1 | M1 | M1 finding a day in minutes.  
M1 dividing total minutes by 5  
A1 cao | B |
### 5 a

1%. by dividing by 100
Then multiply that figure by the percentage needed.
E.g. find 8% of £32
32 ÷ 100 = 0.32
0.32 × 8 = 2.56
So 8% of £32 is £2.56

B1

### 5 b

20% is 2 × 10% or \(\frac{2}{10}\) so need to divide by 10 then multiply by 2
Or divide by 5.

B1

### 6 a

Look for common factors.
When there are no common factors, it’s in its simplest form.

E.g. start with the ratio 12 : 18
Common factors are 2, 3 and 6
Dividing the ration by 6 gives 2 : 3
2 and 3 have no common factors, so you know that it is in its simplest form.

B1

### 6 b

### 7

7 – 4 = 3
So 3 parts = £120
120 ÷ 3 = 40
So one part = £40
So Peter got 2 × £40 = £80

£80
<p>| | | | | | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| **8 a** | | Correct | \[
\frac{2}{3} = 0.66666
\]
\[
\frac{3}{5} = 0.6
\]
0.6666 > 0.6 | B1 | 2 | B1 for correct |
|   |   | Correct | \[
\frac{3}{5} \times 100\% = 60\%
\]
Not correct | B1 | B1 | B1 with clear justification |
| **8 b** |   | 15 mm, 19 mm, 24 mm, 30 mm, 38 mm, 48 mm |   |   |   |
| **8 c** |   | 200 |   |   |   |
| **9 a** | 48 ÷ 3 = 16 pupils liked football best | 2 liked swimming | M1 | 3 | M1 for method of finding each part |
|   | 48 ÷ 4 = 12 liked tennis |   | A3 |   | A1 for each correct sport found |
|   | 48 ÷ 8 × 3 = 18 liked athletics |   | M1 |   | M1 for correct method leading to 2 |
|   | Total 16 + 12 + 18 = 46 |   | M1 |   | M1 for combining fractions |
|   | Balance = 48 − 46 = 2 |   | B1 |   | B1 for recognising \( \frac{3}{4} \) is 150 |
|   | \[
\frac{1}{4} + \frac{1}{2} = \frac{3}{4}
\]  |   | M1 |   | M1 for method of getting from \( \frac{3}{4} \) to the whole |
|   | So \( \frac{3}{4} \) of total = 150 |   | B1 |   | B1 for correct answer alongside justification |
|   | \[
\frac{1}{4} \text{ of total} = 150 \div 3 = 50
\]  |   | B1 |   |   |
|   | So total = 4 × 50 = 200 |   | B1 |   |   |
| **9 b** |   | 15 mm × 1.25 = 18.75 mm | M1 | 3 | M1 for method of increasing by 25% |
|   | = 19 mm to next whole number |   | A1 |   | A1 for 19 |
|   | 19 mm × 1.25 = 23.75 mm |   | M1 |   | M1 for method of continuing in same way |
|   | = 24 mm to next whole number |   | A1 |   | A1 for 24 |
|   | 24 mm × 1.25 = 30 mm |   | A1 |   | A1 for 30 |
|   | 30 mm × 1.25 = 37.5 mm |   | A1 |   | A1 for 38 |
|   | = 38 mm to next whole number |   | A1 |   | A1 for 48 |
|   | 38 mm × 1.25 = 47.5 mm |   | B1 |   | B1 for complete correct solution |
|   | = 48 mm to next whole number |   | B1 |   |   |
|   | 15 mm, 19 mm, 24 mm, 30 mm, 38 mm, 48 mm |   |   |   |   |
### Question 11
One year’s interest is £2500 \times 0.02 = £50
Number of years needed to get £160 in interest
£160 \div £50 = 3.2
4 years’ interest is £50 \times 4 = £200
Next whole year above is 4.

<table>
<thead>
<tr>
<th>M1</th>
<th>A1</th>
<th>M1</th>
<th>3</th>
<th>M1 for finding one years’ interest</th>
<th>A1 cao</th>
<th>M1 for setting up equation for number of years</th>
<th>A1 for 3.2</th>
<th>A1 cao</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Question 12
Ratio of areas of small to large is 1 : 2
\[
\frac{3}{7} \text{ of small square is shaded.}
\]
As a fraction of the larger square, this is
\[
\frac{3}{7} \times \frac{1}{2} = \frac{3}{14}
\]
Total shaded is
\[
\frac{1}{7} + \frac{3}{14} = \frac{5}{14}
\]

<table>
<thead>
<tr>
<th>M1</th>
<th>3</th>
<th>M1 method of sorting ratio.</th>
<th>M1</th>
<th>B1</th>
<th>B1 for explanation of each part</th>
<th>M1</th>
<th>M1 finding fraction in small square</th>
<th>A1 cao</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A1</td>
<td>A1 for explanation of each part</td>
<td></td>
<td>A1 finding fraction in small square</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M1 adding the two fractions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Question 13
If Anna starts with fare of £x
New fare is \(x \times 1.15\)
\[
= 1.15x
\]
A reduction of 15% on that will give negotiated fare as
\[
1.15x \times 0.85 = 0.9775x
\]

<table>
<thead>
<tr>
<th>M1</th>
<th>3</th>
<th>M1 method of stating a starting fare, say £x</th>
<th>A1 cao</th>
<th>M1 finding 15% increase</th>
<th>A1 cao</th>
<th>M1 method of reducing new fare by 15%</th>
<th>A1 cao</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M1 finding 15% reduction.</td>
<td>A1 cao</td>
<td></td>
<td>A1 cao</td>
<td>B1 No with clear justification</td>
<td></td>
</tr>
</tbody>
</table>

### Question 14
Pens-R-Us
Pay for 20 get 10 free
Cost £1.50 \times 20 = £30
Budget Stationery
Number of pens 4 \times (5 + 3) = 32
So pay for 20 and get 12 free.
Cost is the same.

<table>
<thead>
<tr>
<th>M1</th>
<th>2</th>
<th>M1 for method for cost at Pens-R-Us</th>
<th>A1 cao</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Budget Stationery has the better deal as Sian will get 32 pens for the same price as 30 at Pens-R-Us
<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
<th>M</th>
<th>A1</th>
<th>M1</th>
<th>A1 for method of finding ratio</th>
<th>B1 for calculation showing a multiplicative cancelling down</th>
<th>B1 for an understanding of scale and equivalence of units</th>
<th>B1 for reference to multiples of 7</th>
<th>B1 for correct combination to 90</th>
<th>A1 for correct cost</th>
<th>M1 for a method for calculating $\frac{2}{3}$ of the cost</th>
<th>B1 for correct justification of choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Pay for 1000 ml and get 1500 ml Ratio in ml, pay : free 1000 : 500 2 : 1 Buy one get one free Ratio in ml, pay : free 300 : 300 1 : 1 So buy one get one free is the better deal. Buy one get one free is the better deal as you get a higher ratio of shampoo free.</td>
<td>2 M</td>
<td>2 A1</td>
<td>3 M1</td>
<td>3 A1 for usable ratio.</td>
<td>3 M1 for method of finding ratio</td>
<td>4 A1 answer in a suitable form to compare</td>
<td>5 B1</td>
<td>6 B1 for buy one get one free with explanation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 a</td>
<td>1 : 6 ≠ 6 : 1 Because 1 : 6 = 6 : 36 (× 6) Or 6 : 1 = $\frac{1}{6}$ (÷ 6)</td>
<td>M1</td>
<td>2 B1</td>
<td>4 M</td>
<td>4 B1 for method of finding each ratio in its unitary form as a method of comparison, oe</td>
<td>4 B1 for calculation showing a multiplicative cancelling down</td>
<td>4 B1 for an understanding of scale and equivalence of units</td>
<td>4 B1 for reference to multiples of 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 b</td>
<td>19 : 95 (÷19) 1 : 5</td>
<td>1 : 5</td>
<td>1 : 5</td>
<td>1 : 5</td>
<td>1 : 5</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>16 c</td>
<td>1 x 19 = 5 x 19</td>
<td>No, because the units must be the same in order to compare.</td>
<td>No, to retain this ratio requires 2 boys and 5 girls each time, so 7 pupils. This means that there can only be multiples of 7 pupils in the club. 24 is not a multiple of 7</td>
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<tr>
<td>16 d</td>
<td>B : G 2 : 5 4 : 10 6 : 15 (21 pupils) 7 : 17.5 (not possible!) 8 : 20 (28 pupils)</td>
<td>B1</td>
<td>2 B1</td>
<td>4 B1</td>
<td></td>
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<tr>
<td>17 a</td>
<td>Packs of 3: 90 ÷ 3 = 30 30 packs x £1.50 = £45 Packs of 15: 90 ÷ 15 = 6 6 packs x £5 = £30 Packs of 25: 90 is not divisible by 25.</td>
<td>2 B1</td>
<td>2 A1</td>
<td>4 A1</td>
<td>4 B1</td>
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<tr>
<td>17 b</td>
<td>Buy 2 get one free on packs of 15. 15 + 15 = £10 15 = free 15 + 15 = £10 15 = free So new cost = £20 Or (3 x 15)+(3 x 15) = 90 £10 + £10 = £20</td>
<td>2 M</td>
<td>2 B1</td>
<td>4 M1</td>
<td>4 B1</td>
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<tr>
<td>17 c</td>
<td>Packs of 3: 90 ÷ 3 = 30 30 packs x £1.50 = £45 Packs of 15: 90 ÷ 15 = 6 6 packs x £5 = £30 Packs of 25: 90 is not divisible by 25. Buy 2 get one free on packs of 15. 15 + 15 = £10 15 = free 15 + 15 = £10 15 = free So new cost = £20 Or (3 x 15)+(3 x 15) = 90 £10 + £10 = £20</td>
<td>2 M</td>
<td>2 B1</td>
<td>4 M1</td>
<td>4 B1</td>
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<tr>
<td>18</td>
<td>Appropriate workings related to their question.</td>
<td>e.g. A shop increased its prices by 10%. When an item costs £100, how much more does it cost after the price increase? £10</td>
<td>B1</td>
<td>2</td>
<td>B1 for clarity of question</td>
<td>M</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
| 19 a | M : W  
5 : 2  
24 women so the total membership is:  
5 × 12 : 2 × 12  
60 : 24  
Total membership =  
60 + 24 = 84 | 84 | A1 | A1 for 84 members in total | H |
|   | R : S : J = 2 : 3 : 5  
2 + 3 + 5 = 10  
£85 ÷ 10 = £8.50  
Shaun pays 3 × £8.50 = £25.50 | £25.50 | A1 | A1 for correct multiplication 3 × £8.50 oe |   |
|   | Own question like the one in part a  
For example: a tennis club has 30 male members. The ratio of women to men is 6 : 5. How many female members are there? 36 |  | B1 | B1 for correct type of question |   |
| 20 a | \[ b_2 = \frac{5}{4} \times b_1 \]  
= \[ \frac{5}{4} \times 8 \]  
= \[ \frac{40}{4} = 10 \text{ hours} \] | 10 hours | A1 | A1 cao | H |
|   | \[ b_2 \text{ costs } £198 \]  
\[ b_1 \text{ costs } £118 \]  
\[ 198 \div 118 = 1.68 \text{ to 2 dp} \]  
\[ 5 \div 4 = 1.25 \] | The increase in cost is proportionally more than the increase in battery life. | M1 | M1 for division of more expensive cost by cheaper cost |   |
|   | \[ b_2 = \frac{5}{118} \]  
\[ b_2 = \frac{5 \times 118}{4} \]  
\[ = \frac{590}{4} = £147.50 \]  
Reduction is:  
\[ £198 - £147.50 = £50.50 \] | £50.50 | M1 | M1 for multiplying cheaper cost by 5 and dividing by 4 |   |
<table>
<thead>
<tr>
<th></th>
<th>Equation</th>
<th>Description</th>
<th>Mark</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 a</td>
<td>$5 \times 90 = 450$ minutes</td>
<td>Best buy is 5 pack for 80 minutes each @ £4.00</td>
<td>M1</td>
<td>M1 for method of multiplying up for total minutes and then division to identify either cost per minute or time per £</td>
</tr>
<tr>
<td></td>
<td>£6.50 ÷ 450 = 1.44p per minute</td>
<td>Or</td>
<td>B2</td>
<td>B1 for correct workings in first of the three cases</td>
</tr>
<tr>
<td></td>
<td>$5 \times 80 = 400$ minutes</td>
<td>80 minutes is not long enough.</td>
<td>B1</td>
<td>B1 for the correct working in the second two cases</td>
</tr>
<tr>
<td></td>
<td>£6.50 ÷ 400 = 1.625p per minute</td>
<td></td>
<td></td>
<td>B1 for explanation of possible reasons not to choose the best buy</td>
</tr>
<tr>
<td></td>
<td>$5 \times 80 = 400$ minutes</td>
<td>Or</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>£4.00 ÷ 400 = 1p per minute</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>£6.50 ÷ 400 = 1.625p</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>= 69 minutes per £1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>£4.00 ÷ 400 = 100 minutes per £1</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>best value</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>$800 \times 1.19 = €952$</td>
<td>They will get €24 more.</td>
<td>M1</td>
<td>M1 for multiplications</td>
</tr>
<tr>
<td></td>
<td>$800 \times 1.22 = €976$</td>
<td></td>
<td>B1</td>
<td>B1 for subtraction ft</td>
</tr>
<tr>
<td></td>
<td>€976 – €952 = €24</td>
<td></td>
<td>A1</td>
<td>A1 cao</td>
</tr>
</tbody>
</table>
23 a 8 kg = 8000 g
8000 ÷ 250 = 32
3 kg = 3000 g
3000 ÷ 85 = 35 (to nearest whole number)
2 kg = 2000 g
2000 ÷ 20 = 100
7 kg = 7000 g
7000 ÷ 250 = 28

So the limiting value is the amount of icing sugar. Therefore she can make 24 × 28 = 672 biscuits.
Number of packets = 672 ÷ 15 = 44.8

b 44 × 0.75 = 33
33 ÷ 2.99 = £98.67
discounted
44 – 33 = 11 discounted
11 × 2.54 = £27.94

Total sales = £98.67 + £27.94 = £126.61
Total costs = £59 + £26 = £85
% profit = (£126.61 – £85)/£85
0.489529412 × 100% = 48.95%

So she can make 44 complete packs of 15 biscuits.

M1 2
B1 3
M1 for method of division to see how many batches of 15 biscuits can be made with each ingredients
B1 for 32, 35 100 and 28

49% profit to the nearest integer.

M1
B1
M1 for correct identification of limiting value
B1 for correct cost of three-quarters of biscuits
M1 for use of 0.85 multiplier
A1 cao

24 £595 × 1.20 = £714
20% discount
£714 × 0.8 = £571.20
£714.20 – £955 = £23.80
Or
£595 × 0.8 = £476
£476 × 1.2 = £571.20

He is overpaying by £23.80
Disagree; he would pay the shop more than he needs to.

M1 2
M1 for method of multiplying by 1.2 to find cost with VAT
M1 for multiplying by 0.8 to find 20% reduced price (ft)
B1 for subtracting to find overpayment
B1 for demonstrating over-payment with explanation

25 a
b

\[ A \times 0.85 = B \]  
\[ A = B ÷ 0.85 \]
26 a

\[ A \times 1.5 \times 1.5 = A \times 1.5^2 = A \times 2.25 \]

No: an increase to \( A \) of 50% followed by another increase of 50% gives 2.25\( A \). Doubling would be 2\( A \). 2\( A \neq 2.25 A \)

b

\[ A \times 0.75 \times 1.20 = 0.9A \]

If the original cost is \( A \), the cost after a discount of 25% is 0.75\( A \). To pay VAT at 20% gives a new price of 0.9\( A \). If VAT is added first, the price is 1.2\( A \). A 25% reduction gives a new price of 0.9\( A \). Because multiplication is commutative, the prices are the same. It makes no difference.

27 a

\[ A \times \frac{6}{7} = \£996 \]

\[ A = \£996 \times \frac{7}{6} \]

\[ \£1162 \]

b

\[ A \times 1.04 = \£6.50 \]

\[ A = \£6.50 \div 1.04 \]

\[ \£6.25 \]

c

\[ A \times 1.07 = \£957.65 \]

\[ A = \£957.65 \div 1.07 \]

\[ \£895 \]

d

For an original amount \( A \), the multiplier is \( b \) for a percentage increase or decrease, and the new value is \( C \)

\[ A \times b = C \]

e

Multiplier (\( x \))

\( x > 1 \) increase

\( 0 < x < 1 \) decrease

28

Current costs are £1.50/mile and 20p/minute

Competitive pricing structure: answers will vary.

<table>
<thead>
<tr>
<th>Time taken</th>
<th>2 minutes</th>
<th>5 minutes</th>
<th>10 minutes</th>
<th>12 minutes</th>
<th>15 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance</td>
<td>1 mile</td>
<td>2 miles</td>
<td>3 miles</td>
<td>5 miles</td>
<td>6 miles</td>
</tr>
<tr>
<td>Total charge (A)</td>
<td>£2.50</td>
<td>£4.00</td>
<td>£6.50</td>
<td>£9.90</td>
<td>£12.00</td>
</tr>
<tr>
<td>Total charge (B)</td>
<td>£1.90</td>
<td>£4.00</td>
<td>£6.50</td>
<td>£9.90</td>
<td>£21</td>
</tr>
</tbody>
</table>
| 29  | a | Travel 30 miles in 45 minutes
45 minutes = \( \frac{3}{4} \) hour

\[ 30 \div \frac{3}{4} = \frac{30 \times 4}{3} = \frac{120}{3} = 40 \text{ mph as required} \]  
Not changing minutes into hours  
Units of speed = units of distance ÷ units of time | B1 | 2 | B1 correct explanation with calculation that indicates 10 miles every 15 minutes implies 40 miles every 60 minutes oe | H |
| b |  | B1 |  |  |  |  |
| c |  | B1 |  |  |  |  |

| 30 | A rectangle 1 m × 2 m  
Area = 2 m^2  
A rectangle 4 m × 8 m  
Area = 32 m^2  
Length scale factor = 4  
Area scale factor = 16 (4^2)  
Area = 2 × 16 = 32 m^2 | M1 | 2 | M1 for method of trial and improvement | H |
|  |  | M1 | 3 |  |  |  |
|  |  | A1 |  |  |  |  |

| 31 | 75 ÷ 30 = 2.5  
Length scale factor is 2.5  
Volume scale factor is (2.5)^3 = 15.625  
5 × 15.625 = 78.125 litres | B1 | 2 | B1 for calculation of length scale factor. | H |
|  |  | M1 | 3 | M1 for calculation of volume scale factor. |  |
|  |  | A1 |  | A1 cao |  |

| 32 | Length scale factor = 450 ÷ 15 = 30  
Volume scale factor = 30^3 = 27 000  
450 × 27 000 = 12 150 000 cm^3  
\( (+ 100^3 \text{ or } 1 000 000 \text{ for } \text{m}^3) = 12.15 \text{ m}^3 \) | B1 | 3 | B1 for calculation of length scale factor  
M1 for calculation of volume scale factor  
M1 for correct conversion to cubic metres | H |
|  |  | M1 |  |  |  |
|  |  | A1 |  | A1 cao |  |
33. In year 1
£8000 × 0.03 = £240
Interest = £240
So total at end of year 1 = £8000 + £240 = £8240
Year 2
£8240 × 0.03 = £247.20
Interest = £247.20
At end of year 2 = £8240 + £247.20 = £8487.20
Year 3
£8487.20 × 0.03 = £254.61
(Banks round down)
Interest = £254.61
At end of year 3 = £8487.20 + £254.61 = £8741.81
Interest = £254.61
At end of year 3 = £8487.20 + £254.61 = £8741.81

34. Let starting amount be \( B \)
Then \( B \times 0.8^n < \frac{B}{2} \)
Divide both sides by \( B \)
\( 0.8^n < 0.5 \)
Trial and improvement
\( 0.8^2 = 0.64 \) not yet
\( 0.8^3 = 0.512 \) not yet
\( 0.8^4 = 0.4096 \) now less than a half
OR starting with a given amount
Say £100
£100 × 0.8 = £80
£80 × 0.8 = £64
£64 × 0.8 = £51.20
£51.20 × 0.8 = £40.96

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<td>M1 for showing the concept of compound interest. B1 for any suitable method of calculating total at end of year 1 A1</td>
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<tr>
<td>34</td>
<td>2</td>
<td>M1 for choosing a starting a position, either a variable like ( B ) or a specific amount like £100 M1 for working through the weeks in some way M1 for method of finding amounts for weeks 3 and 4 to show the point at which the bank account first dips below 50% of the original balance</td>
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