1. Complete the table for these solids.

<table>
<thead>
<tr>
<th>Solids</th>
<th>Number of faces</th>
<th>Number of vertices</th>
<th>Number of edges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Which shape belongs in which box? Write the numbers in the correct boxes.

   1  2  3  4  5  6  7  8  9  10
   🏠  🎨  🎨  🏠  🎨  🎨  🎨  🎨  🎨  🎨
   Plane shapes  Rectangles  Solids  Quadrilaterals

3. These plane shapes were cut out from coloured paper.

   1  2  3  4  5  6  7  8  9  10
   🏠  🎨  🎨  🏠  🎨  🎨  🎨  🎨  🎨  🎨

   List the numbers of the shapes which are:
   a) quadrilaterals: .................................................................
   b) rectangles: .................................................................
   c) squares: .................................................................

4. How many different cuboids can you build from 12 unit cubes?
   a) Fill in the table.
   b) Circle the cuboids which have at least one square face.

<table>
<thead>
<tr>
<th>Cuboids</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edge a =</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edge b =</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edge c =</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. a) Draw over in the same colour the sets of lines which are parallel. Use different colours for different sets.
   b) Colour the square at all the corners which are right angles.

2. This is part of the track from a model railway.

   Measure the distance between the two horizontal rails.

3. Draw over in the same colour the sets of lines which are parallel. Use a different colour for each set. Colour the squares at corners which are right angles.

4. Complete the drawing to make rectangles.
Piggy bought different kinds of cakes for a party he was arranging.

a) Piggy wanted to taste each cake right away. What part of these cakes did Piggy eat before the party?

b) After the party, Piggy checked on what had been left. Colour the parts of the cakes he found.

![Cakes with different parts eaten](image)

Colour one half of each shape in red and the other half in blue.

![Shapes with different parts](image)

Each drawing is only half of the picture. Complete the whole drawing.

a)  

b)  

c)  

d)  

e)  

4

a) Tom had a length of wire which was 110 cm long. He used half of it to make a model. What length of wire did he have left?

Answer: 

b) Last month Lucy had £30 in her savings bank. Today, this amount is only half of what she has saved. How much money does Lucy have now?

Answer: 

1. Colour a quarter of each shape.

2. Colour one third of each shape in red and another third in green.

3. a) Each drawing is 1 third of a unit. Complete it to make the whole unit.

   b) Each drawing is 1 quarter of a shape. Complete it to make the whole shape.

4. Join up the labels to the corresponding shapes.
1. Fill in the missing numbers. Write down the rule.

Rule: .................................................................

2. Round these numbers to the next nearest whole ten.
   a) \( \approx \) \( \approx \) \( \approx \)
   b) \( \approx \) \( \approx \) \( \approx \)
   c) \( \approx \) \( \approx \) \( \approx \)

3. Write the Roman numerals below these numbers.
   a) 152  b) 74  c) 300  d) 99  e) 108

4. Practise calculation.
   a) \( \times \) = 300  b) \( \times 17 = 0 \)  c) \( \times 4 = 60 \)
   \( \times 5 = 270 \)  \( \div 15 = 15 \)  \( \div 2 = 167 \)
   \( \times 8 = 500 \)  \( \div 90 = 45 \)  \( \div 19 = 0 \)
   \( \times 11 = 110 \)  \( \div 6 = 110 \)  \( \div 50 = 5 \)

5. a) How many hours and minutes have passed in an evening from:

   b) How many more minutes will it then be until midnight?
1 Colour the correct number of marbles. Write a division about each picture.

- 1 third
- 1 quarter
- 1 sixth
- 1 eighth

\[24 \div 3 = \] 

2 How many hours and minutes do the hands on the clock show?

- [ ] hours [ ] minutes
- [ ] hours [ ] minutes
- [ ] hours [ ] minutes
- [ ] hours [ ] minutes

3 a) How many minutes does the minute hand on the clock show when it is pointing to these numbers? Complete the table.

<table>
<thead>
<tr>
<th>Minute hand points to:</th>
<th>12</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minutes shown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b) Shade the clocks to show how far the minute hand has gone. Join up the clocks which are the same.

- 5 minutes
- 15 minutes
- half an hour
- \(\frac{3}{4}\) quarters of an hour
- 30 minutes
- 45 minutes

4 Compare the two sides. Write the correct sign between them. \( (=, <, >) \)

a) half an hour [ ] 35 minutes  b) 15 minutes [ ] a quarter of an hour
c) 50 minutes [ ] \(\frac{3}{4}\) quarters of an hour  d) 1 hour [ ] 60 minutes
e) a quarter of an hour + 5 minutes [ ] half an hour – 5 minutes
f) 20 minutes + half an hour [ ] a quarter of an hour + half an hour
**1**

The clock is set at 12 noon.

Draw where the hands of the clock will be after these amounts of time:

- 12 h 15 min
- 12 h 30 min
- Quarter of an hour
- 12 h 20 min

**2**

Join up the equal quantities.

- Half an hour
- A quarter of an hour
- 3 quarters of an hour
- 2 thirds of an hour
- 15 minutes
- 45 minutes
- 30 minutes
- 40 minutes
- 1 third of an hour

**3**

Complete the open sentences so that they are correct.

a) 3 quarters of an hour + [ ] hour = 1 hour.

b) 30 minutes + [ ] hour = 1 hour.

c) 20 minutes + half an hour + [ ] minutes = 1 hour.

d) A quarter of an hour + a third of an hour + [ ] minutes = 1 hour.

**4**

If the statement is correct, write a ✓ in the box. If not, write a ✗ and correct the mistake.

a) 1 hour = 60 minutes

b) Half an hour = 20 minutes

c) Half an hour = 2 quarters of an hour

d) 20 minutes = 2 thirds of an hour

e) 3 quarters of an hour = 45 minutes

f) 2 thirds of an hour = 1 quarter of an hour + 5 minutes

g) 2 quarters of an hour = 1 quarter of an hour + 15 minutes

---

Page 57
Write the times shown on the clocks in 3 different ways.

a) morning  

b) nearly mid-day  

c) afternoon  

d) evening  

d) night

Draw hands on the clocks to show the times given. Write the time in a different way below each clock.

a) 4.00 am  

b) 8.30 pm  

c) 8.30 am  

d) 12.15 pm  

e) 0.15 am

Fill in the missing numbers.

a) 1 hour =   minutes  

b) half a day =   hours

1 minute =   seconds  

a quarter of a day =   hours

1 day =   hours  

a third of a day =   hours

2 days =   hours  

3 quarters of an hour =   minutes

Complete the tables.

a) Days | 1 | 2 | 1 quarter | 3 quarters | 1 third | 2 thirds | 1 eighth | 1 half

   Hours

   \[ H = \]

\[ D = \]

b) Hours | 1 | 3 | 5 | 1 half | 1 quarter | 1 and a half | 1 third | 2 thirds | 1 sixth | 1 fifth

   Minutes
1. Colour the odd one out. Write the reason for your choice.

120 minutes  
1 hour + half an hour + 25 minutes  
60 minutes + 3 quarters of an hour + 1 quarter of an hour  
3 quarters of an hour + 1 third of an hour + 55 minutes

Reason: 
.................................................................................................................. 

2. Write the amounts of time in **increasing** order.

10 minutes  
35 minutes  
3 quarters of an hour  
1 third of an hour  
1 quarter of an hour  
half a day

.................................................................................................................. 

3. *Sparrow* and *Trout* were arguing over the times in a day. Who is correct? Tick the correct answer and cross out the wrong one.

12 hours  
14 hours  
4 hours  
45 minutes  
15 minutes  
40 minutes  
2 hours  
9 hours  
18 minutes  
30 hours  
12 hours  
4 hours  
60 minutes  
20 minutes  
45 minutes  
3 hours  
8 hours  
20 minutes
Complete the open sentences so that they are correct.

a) 1 fifth of an hour + _____ hour = 1 hour.

b) 40 minutes + _____ hour = 1 hour.

c) 10 minutes + half an hour + _____ minutes = 1 hour.

d) 3 quarters of an hour + 1 sixth of an hour + _____ minutes = 1 hour.

e) 2 thirds of an hour + _____ minutes = 1 hour.

f) _____ minutes + 3 quarters of an hour = 1 hour.

g) 2 thirds of an hour + _____ hour = 1 hour.

A train runs at different times of the day between 2 stations. Complete the table.

<table>
<thead>
<tr>
<th>Departs from Station A at:</th>
<th>Arrives at Station B at:</th>
<th>Journey time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:53</td>
<td>11:30</td>
<td>h min</td>
</tr>
<tr>
<td>10:25</td>
<td>13:10</td>
<td>h min</td>
</tr>
<tr>
<td>17:05</td>
<td>20:56</td>
<td></td>
</tr>
<tr>
<td>21:30</td>
<td>00:45</td>
<td></td>
</tr>
<tr>
<td>00:36</td>
<td>04:35</td>
<td></td>
</tr>
</tbody>
</table>

Practise division. Check with multiplication.

a) $31 \div 5 = \underline{____} \text{ remainder } \underline{____}$

b) $87 \div 9 = \underline{____} \text{ remainder } \underline{____}$

c) $48 \div 7 = \underline{____} \text{ remainder } \underline{____}$

d) $106 \div 10 = \underline{____} \text{ remainder } \underline{____}$

e) $98 \div 3 = \underline{____} \text{ remainder } \underline{____}$

f) $85 \div 60 = \underline{____} \text{ remainder } \underline{____}$
1. If this is 1 unit: 

what is the value of each shaded part?

2. This is my garden.

I have already dug up part of it.

How much of the garden do I still have to dig?

Complete the table.

<table>
<thead>
<tr>
<th>Part already dug</th>
<th>1 fifth</th>
<th>1 quarter</th>
<th>3 quarters</th>
<th>2 fifths</th>
<th>1 half</th>
<th>2 tenths</th>
<th>4 tenths</th>
<th>4 fifths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part remaining</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. I have already drunk 3 quarters of a 2 litre bottle of lemonade.

a) What part of the lemonade is left? ..........................

b) How many cl of the lemonade is left? .........................

c) How many cl of lemonade have I drunk? .......................

4. Write a context for the plan.

Solve it.

\[
\begin{align*}
z &= ? \\
y &= ? \\
x &= ? \\
\text{£110} &= ? \\
2 \text{ thirds} &= ?
\end{align*}
\]
1. Complete the drawings.

If this is:  
- 1 whole →

then this is:
- 1 half →
- 1 sixth →
- 1 eighth →
- 1 third →

2. Five children are running in a 240 m race. At this moment in time:
   - Tom has run 4 sixths of the distance.
   - Zoe has run 2 thirds of the distance.
   - Carol has run 3 quarters of the distance.
   - Jamie has run 3 sixths of the distance.
   - Sue has run half way.

Mark where each child is on the running track.

<table>
<thead>
<tr>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tom</td>
<td></td>
</tr>
<tr>
<td>Zoe</td>
<td></td>
</tr>
<tr>
<td>Carol</td>
<td></td>
</tr>
<tr>
<td>Jamie</td>
<td></td>
</tr>
<tr>
<td>Sue</td>
<td></td>
</tr>
<tr>
<td>0 m</td>
<td>240 m</td>
</tr>
</tbody>
</table>

3. Gerry spent £140 on his holiday. Joe spent 1 seventh more than Gerry.
   a) How much money did Joe spend on his holiday?

   *Answer: ____________________________

   b) How much money did Gerry and Joe spend altogether?

   *Answer: ____________________________
1. Each number is the **sum** of the two numbers directly below it. Fill in the missing numbers.

   a) \[
   \begin{array}{c}
   200 \\
   65 \\
   18 \\
   \end{array}
   \]

   b) \[
   \begin{array}{c}
   200 \\
   20 \\
   20 \\
   \end{array}
   \]

2. Each number is the **product** of the two numbers directly below it. Fill in the missing numbers.

   a) \[
   \begin{array}{c}
   500 \\
   50 \\
   2 \\
   2 \\
   \end{array}
   \]

   b) \[
   \begin{array}{c}
   120 \\
   6 \\
   2 \\
   \end{array}
   \]

3. In a school, each lesson starts on the hour and lasts for 45 minutes.

   a) What part of an hour is:
      
      i) each lesson ..............................
      
      ii) each break? ..............................

   b) The lessons start at 09:00 and lunch is at 13:00.
      How many lessons are there during the morning? ..............................

   c) How many hours and minutes do pupils spend:
      
      i) in lessons ..............................
      
      ii) in breaks? ..............................

4. Fill in the missing items.

   a) \[
   \begin{array}{c}
   100 \\
   \text{1 fifth} \\
   \text{1 half} \\
   \text{1} \\
   \end{array}
   \]

   b) \[
   \begin{array}{c}
   100 \\
   \text{2 fifths} \\
   \text{1 half} \\
   \text{1} \\
   \end{array}
   \]

   c) \[
   \begin{array}{c}
   200 \\
   \text{1 fifth} \\
   \text{1} \\
   \text{20} \\
   \end{array}
   \]

   d) \[
   \begin{array}{c}
   100 \\
   \text{2 tenths} \\
   \text{1 half} \\
   \text{1} \\
   \end{array}
   \]
Complete each given part to 2 whole units.

a) 1 third

<p>| | | | |</p>
<table>
<thead>
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<td></td>
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</tbody>
</table>

b) 1 quarter

<p>| | | | |</p>
<table>
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</tbody>
</table>

C) 1 fifth

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</tr>
</tbody>
</table>

How much of their money did they each spend?

a) Irene had 50 20 20 10 and spent 1 fifth of half of her money.

b) George had 50 50 20 10 and spent half of 1 third of his money.

c) Nick had 100 100 50 50 20 20 20 and spent 1 third of a half.

d) Jane had 50 20 20 20 10 10 10 and spent 1 eighth of a quarter.

Colour the parts stated. Compare the two rectangles. Fill in the missing sign.

a) 2 quarters

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b) 1 eighth

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

c) 3 sixths

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

d) 5 sixths

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The middle number is the product of the 4 numbers around it.

Fill in the missing numbers.
I planted roses in 80 square metres of my garden. This area is 1 fifth of my whole garden. How big is my garden?

Answer: ..........................................................

Complete the table.

<table>
<thead>
<tr>
<th>Unit</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shape</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value of shape</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Colour these shapes in the grid so that the sum of each shape is 500.

What is:

a) 49 less than 123
b) 250 more than 125
c) 3 times more than 33
d) 1 fifth of 110
e) the difference between 97 and 48
f) 1 ninth of 81
g) the product of 18 and 4
h) the sum of 176 and 54?

Join up the equal amounts.

900 – 179  267 + 233  678 – 253  77 + 48 + 81

425  50  1000 – 127  999 ÷ 9

206  111  700 – 9 × 9

500  873  1 quarter of 200

Page 65
1. How many small squares are in the drawings? Write the numbers in the table.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. How many dots are in the drawings? Write the numbers in the table.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Write these numbers as digits. List them in increasing order.

- six hundred and five
- nine hundred and twenty
- two hundred and fifty three
- nine hundred and ninety nine
- six hundred and fifty one
- five hundred and sixty two

\[ \ldots \ldots < \ldots \ldots < \ldots \ldots < \ldots \ldots < \ldots \ldots < \ldots \ldots \]

4. Write these numbers in words.

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) 304</td>
</tr>
<tr>
<td>b) 430</td>
</tr>
<tr>
<td>c) 403</td>
</tr>
<tr>
<td>d) 910</td>
</tr>
<tr>
<td>e) 109</td>
</tr>
<tr>
<td>f) 901</td>
</tr>
</tbody>
</table>
1. *Barry Bear* tried to write the same number in different ways but he made some mistakes. Cross out the mistakes and correct them.

- 9 hundreds, 4 tens and 5 units
- 900 + 50 + 4
- 9 × 100 + 4 × 10 + 5 × 1
- 800 + 100 + 45
- 9 × 100 + 4 × 10 + 5 × 1
- 90 + 45

2. Create as many different 3-digit numbers as you can from the digits 1, 2, 3 and 4. Do not use a digit more than once in any number.

3. Which numbers was *Daffy Duck* thinking about?

a)

b) If  = 100,  = 10, and  = 1

i)  =  

ii)  =  

iii)  =  

iv)  =  

v)  =  

Page 67
1. What is the rule? Continue the sequence for another 10 terms.

700, 694, 688, ..., ..., ..., ..., ..., ..., ..., ..., ..., ...

2. Colour with the same colour or join up the equal numbers.

- 3 hundreds + 8 units
- 5 hundreds + 2 tens + 10 units
- 2 hundreds + 200 units + 8 tens
- 8 hundreds + 8 tens + 19 units

- 94
- 480
- 531
- 900 – 1

- 2 hundreds + 108 units
- 50 + 10 + 34
- 500 + 20 + 10

- 5 hundreds + 3 tens + 1 unit

3. Write the odd numbers smaller than 600 in set **A**.
Write the even numbers greater than 800 in set **B**.

Choose from the numbers in set **U**.

\[ U = \{ 488, 852, 597, 921, 940, 179, 600, 978, 341, 89, 1000 \} \]

4. Complete the table.

<table>
<thead>
<tr>
<th>Number</th>
<th>Calculation</th>
<th>Th</th>
<th>H</th>
<th>T</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>568</td>
<td>5 \times 100 + 6 \times 10 + 8 \times 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>173</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>902</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>430</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1245</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1050</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Write the numbers from set $A$ in the correct boxes.

$$A = \{ 100, 305, 74, 0, 981, 1026, 1439, 1975, 2000, 1000 \}$$

a) Add 12 to each number in $A$ and write the result in $B$.

b) Decide whether the statements are true or false. Write $\checkmark$ or $\times$ in the box.

- i) $A$ contains all 3-digit numbers with digits $1, 2$ and $3$.  
  - ii) $B$ contains all 3-digit numbers with different digits from the set $\{ 1, 2, 3, 4, 5 \}$ and the digits are increasing.
  - iii) None of the numbers in $A$ have digits which are decreasing.
1 Write the numbers as digits.

a)  

b)  

c)  

d)  

2 Write these numbers as digits. Which is more? Write in the correct sign. (<, =, >)

a) 6 hundred and 5 = □□□ □ = 6 hundred and 50
b) 9 hundreds + 2 tens = □□□ □ □ = 9 hundreds + 1 ten + 9 units
c) 2 hundreds + 1 ten + 7 = □□□ □ □ = 2 hundreds + 0 tens + 9 units
d) 7 hundred and 13 = □□□ □ □ = 7 hundreds + 2 tens

Colour yellow the boxes which contain even numbers.

3 a) Complete the table.

<table>
<thead>
<tr>
<th></th>
<th>Th</th>
<th>H</th>
<th>T</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>320</td>
<td>3</td>
<td>100</td>
<td>0 + 2 × 10 + 0 × 1</td>
</tr>
<tr>
<td>ii)</td>
<td>951</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii)</td>
<td>888</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv)</td>
<td>603</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v)</td>
<td>1071</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi)</td>
<td>3540</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b) Write the numbers in the table in words.

i) .................................................................
ii) .................................................................
iii) .................................................................
iv) .................................................................
v) .................................................................
vi) .................................................................
Which numbers sit on the rungs of the number ladders?

Fill in the missing numbers.

Practise calculation. Write the digits in the correct boxes.

a) \(2 + 5 = \) \[\phantom{0} \] \(20 + 50 = \) \[\phantom{00} \] \(200 + 500 = \) \[\phantom{000} \]

b) \(7 + 8 = \) \[\phantom{0} \] \(70 + 80 = \) \[\phantom{00} \] \(700 + 800 = \) \[\phantom{000} \]

c) \(14 + 3 = \) \[\phantom{0} \] \(140 + 30 = \) \[\phantom{00} \] \(1400 + 300 = \) \[\phantom{000} \]

d) \(6 - 4 = \) \[\phantom{0} \] \(60 - 40 = \) \[\phantom{00} \] \(600 - 400 = \) \[\phantom{000} \]

e) \(11 - 5 = \) \[\phantom{0} \] \(110 - 50 = \) \[\phantom{00} \] \(1100 - 500 = \) \[\phantom{000} \]

f) \(20 - 8 = \) \[\phantom{0} \] \(200 - 80 = \) \[\phantom{00} \] \(2000 - 800 = \) \[\phantom{000} \]

Practise multiplication and division.

a) \(7 \times 2 = \) \[\phantom{0} \] \(7 \times 20 = \) \[\phantom{00} \] \(7 \times 200 = \) \[\phantom{000} \]

b) \(12 \div 3 = \) \[\phantom{0} \] \(120 \div 3 = \) \[\phantom{00} \] \(1200 \div 3 = \) \[\phantom{000} \]

c) \(8 \times 6 = \) \[\phantom{0} \] \(8 \times 60 = \) \[\phantom{00} \] \(80 \times 6 = \) \[\phantom{000} \]

d) \(42 \div 7 = \) \[\phantom{0} \] \(420 \div 7 = \) \[\phantom{00} \] \(420 \div 70 = \) \[\phantom{000} \]

e) \(5 \times 4 = \) \[\phantom{0} \] \(5 \times 40 = \) \[\phantom{00} \] \(50 \times 40 = \) \[\phantom{000} \]

f) \(27 \div 9 = \) \[\phantom{0} \] \(270 \div 9 = \) \[\phantom{00} \] \(270 \div 90 = \) \[\phantom{000} \]

Study the numbers in set \(A\). Complete the sentences so that they are correct.

\[A = \{ 152, 125, 72, 34, 909, 999, 450 \} \]

a) All these numbers ..................................................

b) Not all these numbers ..........................................

c) None of these numbers ..........................................

d) There is at least one number which ............................
**1** Calculate:

26 + 13 =  260 + 130 =  58 – 32 =  580 – 320 =  
18 + 42 =  180 + 420 =  70 – 21 =  700 – 210 =  
56 + 44 =  560 + 440 =  100 – 59 =  1000 – 590 =  
135 + 48 =  1350 + 480 =  146 – 18 =  1460 – 180 =  
164 + 36 =  1640 + 360 =  200 – 35 =  2000 – 350 =  

**2** Calculate:

a)  7 × 1 = 11 × 1 =  
b)  19 × 10 = 119 × 10 =  
   7 × 10 = 11 × 10 =  
   7 × 100 = 11 × 100 =  
   900 ÷ 1 = 1000 ÷ 1 =  
c)  900 ÷ 10 = 1000 ÷ 10 =  
   900 ÷ 100 = 1000 ÷ 100 =  
   900 ÷ 100 = 1000 ÷ 100 =

**3** Write numbers in the circles so that the sum of the 3 numbers along each line is 1000. Choose from: 260, 280, 300, 320, 340, 360, 380, 400.

a) 

b) 

**4** Write the numbers as Roman numerals.

a)  

b)  

C  

C  

D  

M  

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1. Write these numbers as Roman numerals.
   a) $100 + (50 + 10) + (1 + 1)$
   b) $(500 + 100) + (50 - 10) + (1 + 1)$
   c) $1000 + (500 + 100) + 1$
   d) $(1000 - 100) + (50 + 10) + 5$
   e) $1000 + (100 + 100) + (5 + 1)$
   f) $(500 + 100 + 100) + (10 + 10 + 10)$

2. How many pence do these items cost? Write the amounts as Arabic numbers.
   a) $XXIV$
   b) $DLV$
   c) $LXXIII$
   d) $CLXXXII$
   e) $XL$
   f) $CCXIV$
   g) $MCCXII$
   h) $CLXXIX$

3. Write these numbers as Roman numerals. For example:
   $$628 = (500 + 100) + (10 + 10) + (5 + 1 + 1 + 1) = DCXXVIII$$
   a) $756 = (500 + 100 + 100) + 50 + (5 + 1) =$
   b) $435 = (500 - 100) + (10 + 10 + 10) + 5 =$
   c) $263 = (\quad)$
   d) $974 = (\quad) +$

4. Which is more? How many more?
   a) CLIV CLVI
   b) DXXIX DXXXII
   c) M DCCCX
   d) CCCL CCCXX
1. Which numbers do the letters stand for? Write the numbers in the boxes.
   a) a  b  c  d
      0  100  200  300
   b) a  b  c  d  e
      0  100  200  300  500  600

2. Join up the letters to the matching numbers.
   460, 510, 600, 605, 798, 850, 972, 975, 1420, 1600, 1703

3. Which whole numbers make each statement true? Mark them on the number line. Write down the highest and lowest possible numbers.
   a) \(380 < \_\_\_\_\_\_\_\_ < 450\)
      0  100  200  300  400  500  600
   b) \(280 \leq \_\_\_\_\_\_\_\_ \leq 380\)
      0  100  200  300  400  500  600

4. Continue the sequences.
   a) 1, 2, 4, 8, 16, 
   b) 1, 4, 9, 16, 25, 
   c) 0, 1, 1, 2, 3, 5, 8, 
   d) 1, 3, 6, 10, 15, 

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Study the numbers in set B. Complete the sentences so that they are correct.

\[ B = \{ 144, 273, 50, 18, 705, 1001, 850 \} \]

a) All these numbers
b) Not all these numbers
c) None of these numbers
d) There is at least one number which
e) There are no numbers which
f) There is at least one number which is not

Fill in the missing numbers.

\[ 500 - 46 \quad - 28 \quad \div 2 \quad \times 3 \quad + 361 \]

Write the operations in reverse order.

\[ 500 \quad \quad \quad \quad \quad \quad \quad \]

Complete the table. Write the rule in different ways.

<table>
<thead>
<tr>
<th>( \star )</th>
<th>475</th>
<th>625</th>
<th>217</th>
<th>37</th>
<th>475</th>
<th>111</th>
<th>456</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \odot )</td>
<td>360</td>
<td>1002</td>
<td>555</td>
<td>926</td>
<td>382</td>
<td>765</td>
<td></td>
</tr>
<tr>
<td>( \odot )</td>
<td>835</td>
<td>960</td>
<td>1012</td>
<td>1000</td>
<td>500</td>
<td>850</td>
<td></td>
</tr>
</tbody>
</table>

\( \odot = \) \quad \( \star = \) \quad \( \odot = \)

Write these numbers as Roman numerals.

a) 653 \hspace{1cm} b) 402 \hspace{1cm} c) 317 \hspace{1cm} d) 528 \hspace{1cm} e) 1010

\[ \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdOTS

A glass full of milk weighs 370 g. When the glass is half full of milk it weighs 290 g. What does the empty glass weigh?

Answer: \[ \quad \]
1. List the whole numbers which have these numbers as their nearest whole ten.
   a) 60: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
   b) 100: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
   c) 580: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
   d) 1500: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
   e) 0: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

2. Mark on the number line the numbers which have these numbers as the nearest whole hundred:
   a) 500: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
   b) 1000: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

3. Decide whether the quantities in the answers are exact or approximate. Write = or \( \approx \) in the boxes.
   a) Ann asked the shop assistant about the price of a computer. The shop assistant said, "It is £400." \( \square \)
   b) Brian asked a policeman how far it was to the Library. The policeman said, "It is 400 metres further on." \( \square \)
   c) Cindy asked her mother how many buttons were in her button box. Her mother said, "There must be 100 buttons in the box." \( \square \)
   d) Dennis asked the storeman how many screws were in a packet. The storeman said, "There are 150 screws in a packet." \( \square \)

4. Round these numbers to the nearest
   a) ten: 138 \( \approx \) 134 \( \approx \) 135 \( \approx \) 574 \( \approx \)
   577 \( \approx \) 575 \( \approx \) 1405 \( \approx \) 1404 \( \approx \)
   1408 \( \approx \) 992 \( \approx \) 999 \( \approx \) 995 \( \approx \)
   b) hundred: 992 \( \approx \) 999 \( \approx \) 995 \( \approx \) 138 \( \approx \)
   134 \( \approx \) 135 \( \approx \) 574 \( \approx \) 577 \( \approx \)
   575 \( \approx \) 1405 \( \approx \) 1404 \( \approx \) 1408 \( \approx \)
1. List the whole numbers which:
   a) round to 500 as the nearest hundred and have 5 as the tens digit.
   b) round to 500 as the nearest hundred and have 4 as the tens digit.
   c) round to 500 as the nearest hundred and also as the nearest ten.

2. Which digits can the letters represent so that if the numbers are rounded to:
   a) the nearest ten, the value is 360
      \[\begin{array}{cccccc}
      a & 5 & 6 \\
      b & 6 & 4 \\
      c & 5 \\
      d & 3 \\
      e & 35 \\
      f & 36 \\
      \end{array}\]
   b) the nearest hundred, the value is 400?
      \[\begin{array}{cccccc}
      g & 5 & 0 \\
      h & 4 & 9 \\
      i & 1 \\
      j & 4 & 9 \\
      k & 3 & 5 \\
      l & 4 & 4 \\
      \end{array}\]

3. Round these numbers to:
   a) the nearest ten  
      b) the nearest hundred.
      \[\begin{array}{cccc}
      1006 & \approx & \ldots & . \\
      1005 & \approx & \ldots & . \\
      1001 & \approx & \ldots & . \\
      1753 & \approx & \ldots & . \\
      1759 & \approx & \ldots & . \\
      1750 & \approx & \ldots & . \\
      \end{array}\]

4. Two different numbers round to 300 as the nearest hundred. Is it possible that:
   a) both numbers are less than 300 
   b) the smaller number is 100 less than the other number 
   c) one number has 5 and the other has 0 as the tens digits 
   d) both numbers are whole hundreds?
1. Estimate the length of the routes in the drawings first, then measure them.
How long are the routes really if 1 cm in the drawing means 10 m in real life?

a) Estimate: ________ cm
Length: ______ mm = __________ cm
Length in real life: ________ m

b) Estimate: ________ cm
Length: ______ mm = __________ cm
Length in real life: ________ m

c) Estimate: ________ cm
Length: ______ mm = __________ cm
Length in real life: ________ m

d) Estimate: ________ cm
Length: ______ mm = __________ cm
Length in real life: ________ m

2. Write these lengths in millimetres.

a) 2 cm = ______ mm, 11 cm = ______ mm, 105 cm = ______ mm
b) 5 cm = ______ mm, 20 cm = ______ mm, 132 cm = ______ mm
c) 9 and a half cm = ______ mm, 57 and a half cm = ______ mm,
   half a cm = ______ mm, 123 and a half cm = ______ mm

3. Change the units of length.

a) 25 mm = ______ cm ______ mm b) 2 m = ______ cm ______ mm
   125 mm = ______ cm ______ mm 2 and a half m = ______ cm
   82 mm = ______ cm ______ mm 12 m = ______ cm
   382 mm = ______ cm ______ mm 642 cm = ______ m ______ cm
### 1

Round these lengths to:

a) the nearest 10 mm  
   b) the nearest 100 mm

<table>
<thead>
<tr>
<th>Length in mm</th>
<th>Rounded to nearest 10 mm</th>
<th>Rounded to nearest 100 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>184</td>
<td>≈ 180</td>
<td>≈ 200</td>
</tr>
<tr>
<td>687</td>
<td>≈ 600</td>
<td>≈ 700</td>
</tr>
<tr>
<td>185</td>
<td>≈ 180</td>
<td>≈ 200</td>
</tr>
<tr>
<td>205</td>
<td>≈ 200</td>
<td>≈ 200</td>
</tr>
<tr>
<td>100</td>
<td>≈ 100</td>
<td>≈ 100</td>
</tr>
<tr>
<td>372</td>
<td>≈ 370</td>
<td>≈ 370</td>
</tr>
</tbody>
</table>

### 2

The length of a line is about 12 cm, rounded to the nearest cm.

How long could the actual length of the line be?

Draw 4 possible lines accurately. Write the actual length below each line.

### 3

a) Write these lengths in millimetres.

<table>
<thead>
<tr>
<th>Length in cm</th>
<th>Length in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>120</td>
</tr>
<tr>
<td>3 cm 3 mm</td>
<td>36</td>
</tr>
<tr>
<td>1 cm 2 mm</td>
<td>12</td>
</tr>
<tr>
<td>30 cm 3 mm</td>
<td>330</td>
</tr>
<tr>
<td>10 cm 2 mm</td>
<td>122</td>
</tr>
<tr>
<td>3 m 30 cm</td>
<td>3030</td>
</tr>
<tr>
<td>102 cm</td>
<td>1020</td>
</tr>
<tr>
<td>3 m 3 cm</td>
<td>303</td>
</tr>
<tr>
<td>120 cm</td>
<td>1200</td>
</tr>
<tr>
<td>3 m 3 mm</td>
<td>303</td>
</tr>
<tr>
<td>1 m 2 cm</td>
<td>1020</td>
</tr>
<tr>
<td>33 cm 3 mm</td>
<td>3330</td>
</tr>
<tr>
<td>1 m 2 mm</td>
<td>1020</td>
</tr>
<tr>
<td>30 cm 30 mm</td>
<td>30300</td>
</tr>
</tbody>
</table>

b) List them in increasing order.

<table>
<thead>
<tr>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
1. Round the lengths given in millimetres to the nearest centimetre. Follow this pattern:

\[
658 \text{ mm} \approx 660 \text{ mm}, \quad 660 \text{ mm} = 66 \text{ cm}
\]

\[
658 \text{ mm} \approx 66 \text{ cm}
\]

a) \(324 \text{ mm} \approx \boxed{32} \text{ cm}\) .................................................................

b) \(530 \text{ mm} \approx \boxed{53} \text{ cm}\) .................................................................

c) \(799 \text{ mm} \approx \boxed{79} \text{ cm}\) .................................................................

d) \(2002 \text{ mm} \approx \boxed{200} \text{ cm}\) .................................................................

2. Join up these numbers to the approximate place on the number line.

\[
\begin{array}{cccc}
400 & 463 & 500 & 644 \\
500 & 600 & 700 & 800 \\
700 & 800 & 900 & 1000 \\
\end{array}
\]

3. a) Complete the table.

<table>
<thead>
<tr>
<th>Number</th>
<th>Rounded to nearest 10</th>
<th>Rounded to nearest 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>943</td>
<td></td>
<td></td>
</tr>
<tr>
<td>304</td>
<td></td>
<td></td>
</tr>
<tr>
<td>184</td>
<td></td>
<td></td>
</tr>
<tr>
<td>765</td>
<td></td>
<td></td>
</tr>
<tr>
<td>125</td>
<td></td>
<td></td>
</tr>
<tr>
<td>550</td>
<td></td>
<td></td>
</tr>
<tr>
<td>247</td>
<td></td>
<td></td>
</tr>
<tr>
<td>805</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b) List all possible whole numbers which have:

- 5 as the tens digit when rounded to the nearest ten, and also
- 5 as the hundreds digit when rounded to the nearest hundred.