Section 1:
Identify common factors, common multiples and prime numbers.

1. Write **two different** numbers in **each section** of the sorting diagram.

<table>
<thead>
<tr>
<th>multiple of 3</th>
<th>not a multiple of 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>multiple of 8</td>
<td></td>
</tr>
<tr>
<td>not a multiple of 8</td>
<td></td>
</tr>
</tbody>
</table>
2 Adam is thinking of a number.
   His number is a **factor of 32**.
   His number is also a **factor of 48**.
   His number is **greater than 2**.

There are three numbers Adam could be thinking of. Write them all.

   [ ] or [ ] or [ ]

3 Complete these calculations using **different prime** numbers.

   [ ] + [ ] = 24
   [ ] + [ ] = 24
   [ ] + [ ] = 24

4 Here is a diagram for sorting numbers.

Write these three numbers in the correct boxes.

   61 ___ 62 ___ 63 ___

Start

- prime
- even
- not even
- not prime
- even
- not even
Section 2:
Use knowledge of the order of operations to carry out calculations involving the four operations.

5. Complete the calculations.

4 + 3 x 5 =

16 - 10 ÷ 2 =

12 x 3 + 4 =

6. Insert pairs of brackets ( ) to make these calculations correct.

3 x 2 + 7 = 27

20 ÷ 4 + 1 = 4

7. Look at these signs. < = >

Write the correct sign in each box

4 + 1 x 3 = 15

6 x (3 + 1) = 6 x 3 + 1

12 ÷ 3 + 1 = (12 ÷ 3) + 1
Section 3:
Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication

8. Calculate $2305 \times 64$

9. A mobile phone costs £90.45.

A shop sells 23 phones in a week.

How much money do they make?
Section 4:
Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division (using the formal written method of short division where appropriate), and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.

10 Calculate 5753 ÷ 11

Show your method

11 Calculate 6592 ÷ 32

Show your method
A coach can carry 42 passengers.

There are 326 people going to the zoo from Kineton School.

How many coaches are needed to take everyone?

Show your method

coaches

Writing pens cost 45p each.

A school has £50 to spend on pens.

How many pens can they buy?

Show your method

pens
Section 5:
Solve problems involving addition, subtraction, multiplication and division and solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

14 Nick is taking part in a sponsored run around the school field. One lap of the field is 173 metres. Nick runs 24 laps. He receives £5 for every complete kilometre he runs.

How much money does he make?

15 A farmer has two fields. One field has an area of 12,280 square meters. The other field is rectangular. It is 135m long and 84m wide.

Calculate the difference in areas of the two fields.
16 Eve buys 300g of Cheddar and 250g of Swiss cheese.

She pays with a £10 note.

Cheddar Cheese
£5.20p per kg

Swiss Cheese
64p per 100g

How much change does she get?

Show your method

3 marks

17 Adam, Marcus and Evie count the money they have in their pockets.
Adam has 10p more than Marcus.
Marcus has 5p more than Evie.
Altogether they have 80p.

How much money does Adam have?

Show your method

2 marks