

Warning: this calculation should only be carried out by this method after lots of earlier work leading up to it!

$$\begin{array}{r} 25 \text{ remainder } 17 \\ 34 \overline{) 867} \\ \underline{68} \phantom{0} \\ 187 \\ \underline{170} \\ 17 \end{array}$$

First carry out an estimate of the answer. I think 867 divided by 34 is over 20 but under 30. Then proceed using these steps:

1. How many 34s in 86?
2.  $2 \times 34$  is 68.  $3 \times 34$  is 102 which is too many, so it must be 2.
3. Put the 2 in the tens column above the question.
4. Place the 68 below the 86 and subtract.
5.  $86 - 68$  is 18.
6. 'Bring down' the 7 to make 187.
7. How many 34s in 187.
8. By trial and improvement and some rough work multiplying 34 by my estimated numbers I find that  $34 \times 5 = 170$ .
9. Put the 5 in the column above the question.
10. Place the 170 under the 187 and subtract.
11. The remainder must be less than the original number you are dividing by.

Long division p1  
Maths worksheets from [mathsblog.co.uk](http://mathsblog.co.uk)

1.  $13 \overline{)406}$     2.  $11 \overline{)626}$     3.  $15 \overline{)547}$     4.  $22 \overline{)489}$

5.  $31 \overline{)784}$     6.  $22 \overline{)685}$     7.  $15 \overline{)325}$     8.  $41 \overline{)975}$

9.  $24 \overline{)984}$     10.  $35 \overline{)805}$     11.  $16 \overline{)256}$     12.  $42 \overline{)882}$

Working out:

Answers

- |           |            |            |            |
|-----------|------------|------------|------------|
| 1. 31 r 3 | 2. 56 r 10 | 3. 36 r 7  | 4. 22 r 5  |
| 5. 25 r 9 | 6. 31 r 3  | 7. 21 r 10 | 8. 23 r 32 |
| 9. 41     | 10. 23     | 11. 16     | 12. 21     |

Lots more like this on the MathSphere, 'It's All Figured Out' worksheet CD [www.mathsphere.co.uk](http://www.mathsphere.co.uk)