

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

$$\begin{array}{r} 21 \text{ remainder } 33 \\ 36 \overline{) 789} \\ \underline{72} \\ 69 \\ \underline{36} \\ 33 \end{array}$$

First carry out an estimate of the answer. I think 789 divided by 36 is about 20.

Then proceed using these steps:

1. How many 36s in 78?
2. 2×36 is 72. 3×36 is 108 which is too many, so it must be 2.
3. Put the 2 in the tens column above the question.
4. Place the 72 below the 78 and subtract.
5. $78 - 72$ is 6.
6. 'Bring down' the 9 to make 69.
7. How many 36s in 69.
8. By trial and improvement and some rough work multiplying 36 by my estimated numbers I find that $36 \times 1 = 36$.
9. Put the 1 in the units column above the question.
10. Place the 36 under the 69 and subtract.
11. The remainder (33) must be less than the original number you are dividing by.

Long division p2
Maths worksheets from mathsblog.co.uk

1. $14 \overline{)517}$ 2. $15 \overline{)735}$ 3. $12 \overline{)658}$ 4. $21 \overline{)591}$

5. $32 \overline{)895}$ 6. $22 \overline{)736}$ 7. $25 \overline{)416}$ 8. $42 \overline{)625}$

9. $22 \overline{)564}$ 10. $51 \overline{)726}$ 11. $18 \overline{)391}$ 12. $41 \overline{)895}$

Working out:

Answers

- | | | | |
|------------|-------------|-------------|-------------|
| 1. 36 r 13 | 2. 49 | 3. 54 r 10 | 4. 28 r 3 |
| 5. 27 r 31 | 6. 33 r 10 | 7. 16 r 16 | 8. 14 r 37 |
| 9. 25 r 14 | 10. 14 r 12 | 11. 21 r 13 | 12. 21 r 34 |

Lots more like this on the MathSphere, 'It's All Figured Out' worksheet CD www.mathsphere.co.uk