

Thursday 14th – Dividing – interpreting remainders

Today you will need to use the ‘bus stop’ method to solve these division problems with remainders. Read the question carefully.

BUS STOP DIVISION

$142 \div 4 = 35 \cdot 5$

$$\begin{array}{r} 035 \cdot 5 \\ 4 \overline{)142 \cdot 0} \\ \underline{4} \\ 0 \\ \underline{20} \\ 20 \\ \underline{20} \\ 0 \end{array}$$

r2
 $\frac{2}{4} = \frac{1}{2} = 0.5$

$186 \div 6 =$

$$\begin{array}{r} 031 \\ 6 \overline{)186} \\ \underline{6} \\ 18 \\ \underline{18} \\ 0 \end{array}$$

no groups of 6 can be made
 $3 \times 6 = 18$
 $1 \times 6 = 6$

1. $437 \div 4$ 2. $\underline{\quad} = 561$ divided by 5 3. How many lots of 6 go into 541?

4. 2. I am thinking of a two-digit number below 60.

- When it is divided by 10, the remainder is 6.
- When it is divided by 3, the remainder is 2.

What could my number be?

5. Rosie writes,
 $85 \div 3 = 28 \text{ r } 1$

She says 85 must be 1 away from a multiple of 3
Do you agree?

6. 37 sweets are shared between 4 friends.
How many sweets are left over?

Four children attempt to solve this problem.

- Alex says it's 1
- Mo says it's 9
- Eva says it's 9 r 1
- Jack says it's 8 r 5

Can you explain who is correct and the mistakes other people have made?

7. 5. I am thinking of a three-digit number below 200.

- When it is divided by 2, the remainder is 1.
- When it is divided by 5, the remainder is 2.
- When it is divided by 3, there is no remainder.

What could my number be?

8. Challenge!

Always, Sometimes, Never?

A three-digit number made of consecutive descending digits divided by the next descending digit always has a remainder of 1

$$765 \div 4 = 191 \text{ remainder } 1$$

How many possible examples can you find?