

Thursday 14<sup>th</sup> – 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

$$142 \div 4 = 35 \cdot 5$$

r2

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

$$\begin{array}{r} 035 \cdot 5 \\ 4 \overline{) 142 \cdot 0} \\ \underline{4} \phantom{0} \\ 0 \phantom{0} \\ \underline{12} \phantom{0} \\ 2 \phantom{0} \\ \underline{20} \\ 0 \end{array}$$

$$186 \div 6 =$$

	0	3	1
6	1	8	6

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

1.  $437 \div 4$       2.  $\underline{\hspace{2cm}} = 561$  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?