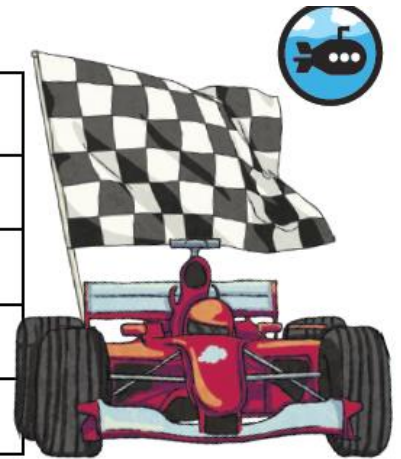# Wednesday – Week 4
Short Division

Level 1

1) Use short division to calculate the length of one lap in each race.

Course	Total Race Length (metres)	Number of Laps	Lap Length (metres)
Goldrock	9375	5	
Badcopse	7612	11	
Capse	8743	7	
Toby's Tor	9711	13	

Level 2

1) Felicity has carried out this short division to calculate the number of seats per row in Capse Grandstand. There are 2156 seats in eleven rows. She did not expect his answer to have a remainder so thinks that she might have made a mistake. Explain Felicity's error and work out the correct answer.

$$
\begin{array}{r}
2\ \ 1\ \ 4\quad r2 \\
\ \ ^2 1\ ^1 5\ ^4 6 \\
\hline
11\ \big|\ 2\ \ 1\ \ 5\ \ 6
\end{array}
$$

2) Daniel is working out how many full laps of Goldrock Circuit he could complete in 50 hours. Each lap takes him 14 minutes to complete. He has correctly worked out that 50 hours is 3000 minutes.

I can complete 215 full laps in 50 hours.

Do you agree? Explain your answer.

Challenge

1) Organisers for a race must decide how to organise the seats. Organise the seats in three different ways choosing a number of rows (divisor) and a number of seats (dividend) from the lists. Predict whether your answer will have a remainder or not. Can you explain your reasons? Finally, calculate how many seats will be in each row.

Number of Rows	Number of Seats
11	1440
12	1606
15	3000
20	4200
25	7925

Number of Rows	Number of Seats	Remainder Prediction	Final Calculation