Wednesday – Week 4
Short Division – ANSWERS

Level 1

1)

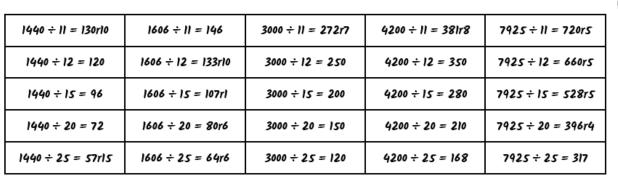| Course	Total Race Length (metres)	Number of Laps	Lap Length (metres)
Goldrock	9375	5	1875
Badcopse	7612	11	692
Capse	8743	7	1249
Toby's Tor	9711	13	747

Level 2

1) Accept an explanation that shows that Fernando has incorrectly divided 21 (hundreds) by 11 to equal 2 with one remainder. He then exchanged a remainder of 1 (hundreds) into 10 (tens) and regrouped this in the tens column. The correct answer should be 196.

2) Accept any correct explanation that shows that Daniel is incorrect. For example, $3000 \div 14 = 214$ r4. As there is a remainder of 4, this means that he has completed 214 full laps and he will be four minutes (out of 14) into his next lap at the end of the 50 hours. Daniel has incorrectly rounded his answer up to the next whole number. His answer should be 214 as he did not complete the 215th lap.

Challenge

1) Prediction reasoning might include spotting multiples of 5 or 10, or identifying odd and even numbers.

$1440 \div 11 = 130$r10	$1606 \div 11 = 146$	$3000 \div 11 = 272$r7	$4200 \div 11 = 381$r8	$7925 \div 11 = 720$r5
$1440 \div 12 = 120$	$1606 \div 12 = 133$r10	$3000 \div 12 = 250$	$4200 \div 12 = 350$	$7925 \div 12 = 660$r5
$1440 \div 15 = 96$	$1606 \div 15 = 107$r1	$3000 \div 15 = 200$	$4200 \div 15 = 280$	$7925 \div 15 = 528$r5
$1440 \div 20 = 72$	$1606 \div 20 = 80$r6	$3000 \div 20 = 150$	$4200 \div 20 = 210$	$7925 \div 20 = 396$r4
$1440 \div 25 = 57$r15	$1606 \div 25 = 64$r6	$3000 \div 25 = 120$	$4200 \div 25 = 168$	$7925 \div 25 = 317$

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