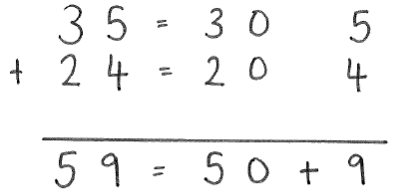
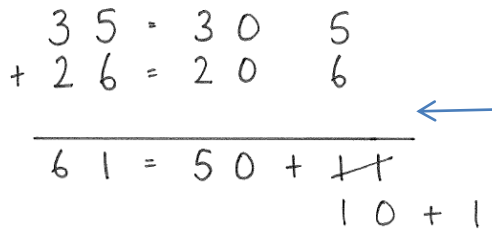
Year 2 Addition +	Add any pair of 2-digit numbers	



Partition into tens and units.

Add the units (5 + 4 = 9), then tens (30 + 20 = 50).

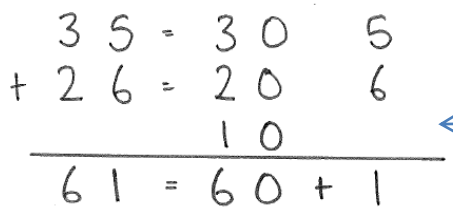
Answer: 50 + 9 = 59



Partition into tens and units.

Add the units (5 + 6 = 11), then tens (30 + 20 = 50)

Answer: 50 + 11 (partition 11 into 10 + 1 to make it easier) = 61

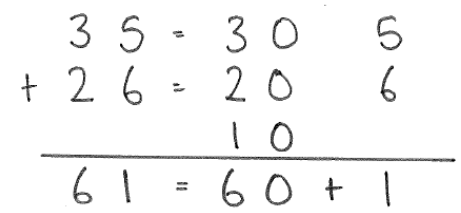
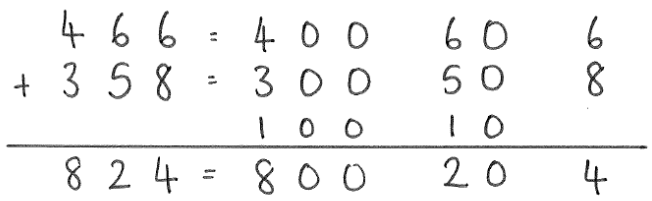
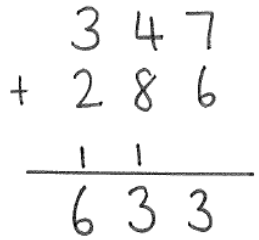


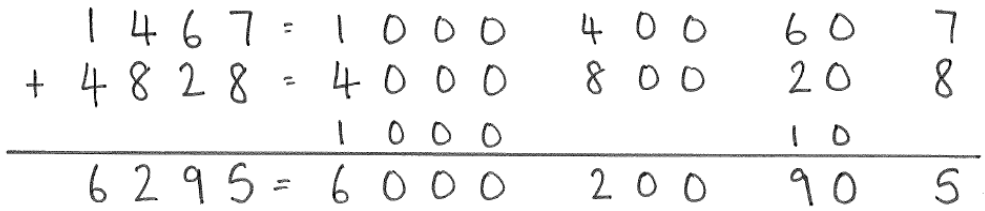
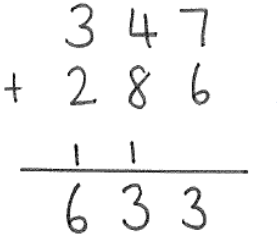
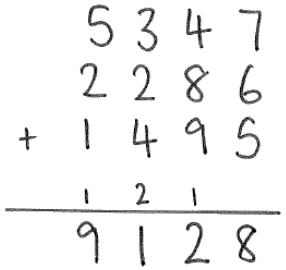
Partition into tens and units.

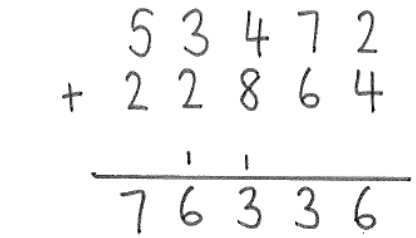
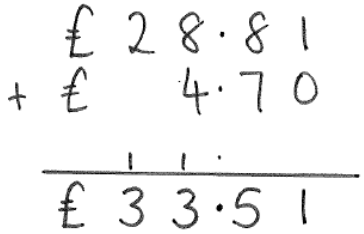
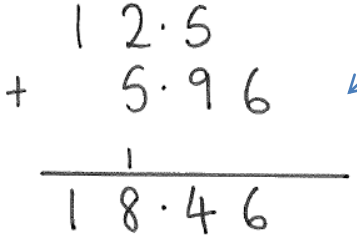
Add the units (5 + 6 = 11). Write a 1 beneath the line in the units column and carry the ten above the line into the tens column.

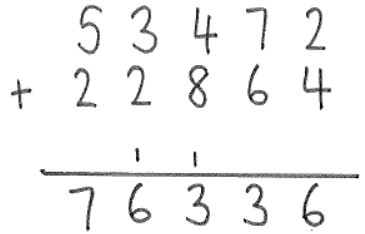
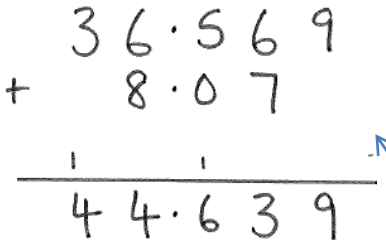
Add the tens (30 + 20 + 10 = 60)

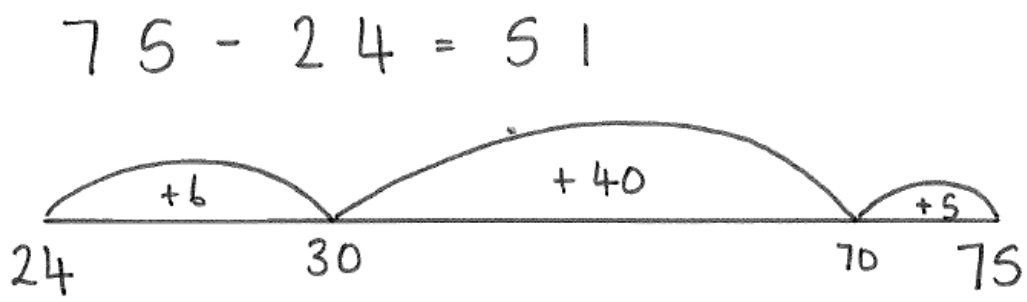
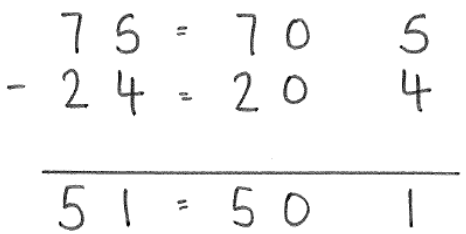
Answer: 60 + 1 = 61

Year 3 Addition +	Use expanded column addition to add two or three 3-digit numbers or three 2-digit numbers	 35 = 30 5 + 26 = 20 6 10 61 = 60 + 1  466 = 400 60 6 + 358 = 300 50 8 100 10 824 = 800 20 4 Partition into hundreds, tens and units. Add the units (6 + 8 = 14). Write 4 beneath the line in the units column and carry the ten above the line into the tens column. Add the tens (60 + 50 + 10 = 120). Write 20 beneath the line in the tens column and carry the hundred above the line into the hundreds column. Add the hundreds (400 + 300 + 100 = 800) Answer: 800 + 20 + 4 = 824
	Begin to use compact column addition to add numbers with 3 digits	 347 + 286 11 633 Add the units (7 + 6 = 13). Write 3 beneath the line in the units column and carry 1 ten above the line into the tens column. Add the tens column (4 + 8 + 1 = 13). Write 3 beneath the line in the tens column and carry 1 hundred above the line into the hundreds column. Add the hundreds column (3 + 2 + 1 = 6)

Year 4 Addition +	Column addition for 3-digit and 4-digit numbers	 See Year 3 addition example  Add the units (7 + 6 = 13). Write 3 beneath the line in the units column and carry 1 ten above the line into the tens column. Add the tens column (4 + 8 + 1 = 13). Write 3 beneath the line in the tens column and carry 1 hundred above the line into the hundreds column. Add the hundreds column (3 + 2 + 1 = 6)  Add the units (7 + 6 + 5 = 18). Write 8 beneath the line in the units column and carry 1 ten above the line into the tens column. Add the tens column (4 + 8 + 9 + 1 = 22). Write 2 beneath the line in the tens column and carry 2 hundred above the line into the hundreds column. Add the hundreds column (3 + 2 + 4 + 2 = 11). Write 1 beneath the line in the hundreds column and carry 1 thousand above the line into the thousands column. Add the thousands column (5 + 2 + 1 + 1 = 9)

Year 5 Addition +	Use column addition to add two or three whole numbers with up to 5 digits Use column addition to add any pair of 2-place decimal numbers, including amounts of money	   Add the units (2 + 4 = 6). Write 6 beneath the line in the units column. Add the tens column (7 + 6 = 13). Write 3 beneath the line in the tens column and carry 1 hundred above the line into the hundreds column. Add the hundreds column (4 + 8 + 1 = 13). Write 3 beneath the line in the hundreds column and carry 1 thousand above the line into the thousands column. Add the thousands column (3 + 2 + 1 = 6) Add the ten thousands column (5 + 2 = 7) Add the hundredths (0 + 6 = 6). Write 6 beneath the line in the hundredths column. Add the tenths (5 + 9 = 14). Write 4 beneath the line in the tenths column and carry 1 unit above the line in the units column. Remember to keep the decimal points in line and put the decimal point in your answer. Add the units (2 + 5 + 1 = 8). Add the tens (1 + 0 = 1)

Year 6 Addition +	Use column addition to add numbers with up to 5 digits	 Add the units (2 + 4 = 6). Write 6 beneath the line in the units column. Add the tens column (7 + 6 = 13). Write 3 beneath the line in the tens column and carry 1 hundred above the line into the hundreds column. Add the hundreds column (4 + 8 + 1 = 13). Write 3 beneath the line in the hundreds column and carry 1 thousand above the line into the thousands column. Add the thousands column (3 + 2 + 1 = 6). Write 6 beneath the line in the thousands column. Add the ten thousands column (5 + 2 = 7). Write 7 beneath the line in the ten thousands column.
	Use column addition to add decimal numbers with up to 3 decimal places	 Add the thousandths column (9 + 0 = 9). Write 9 beneath the line in the units column. Add the hundredths column (7 + 6 = 13). Write 3 beneath the line in the hundredths column and carry 1 tenth above the line into the tenths column. Add the tenths (5 + 0 + 1 = 6). Write 6 beneath the line in the tenths column. Don't forget the decimal point. Keep it in line. Add the units column (6 + 8 = 14). Write 4 beneath the line in the units column and carry 1 ten above the line into the tens column. Add the tens column (3 + 1 = 4). Write 4 beneath the line in the tens column.

Year 2 Subtraction -	Subtract any pair of 2-digit numbers by counting up	 Draw a number line. Write the smaller number (24) at the start and the larger number (75) at the end. Hop 6 to get to 30 (always hop to the next ten first). Hop 40 to get to 70. Hop 5 to get to 75. Add the hops. Answer: 6 + 40 + 5 = 51
	Begin to use expanded column subtraction for 2-digit numbers	 Partition into tens and units. Subtract the units (5 – 4 = 1), then tens (70 - 20 = 50) Answer: 50 + 1 = 51

Year 3 Subtraction -	Use counting up as an informal written strategy for subtracting pairs of 3-digit numbers	247 - 126 = 121  Draw a number line. Write the smaller number (126) at the start and the larger number (247) at the end. Hop 4 to get to 130 (hop to the next ten first). Hop 70 to get to 200 (hop to the next hundred). Hop 40 to get to 240. Hop 7 to get to 247. Add the hops. Answer: 4 + 70 + 40 + 7 = 121
	Begin to use expanded column subtraction	75 = 70 5 - 24 = 20 4 51 = 50 1 Partition into tens and units. Subtract the units (5 – 4 = 1), then tens (70 - 20 = 50) Answer: 50 + 1 = 51

Year 4 Subtraction -	Use expanded column subtraction for 3- and 4-digit numbers	

247 = 200 40 7
− 126 = 100 20 6
121 = 100 20 1

Partition into hundreds, tens and units.

Subtract the units (7 - 6 = 1), then tens (40 – 20 = 20), then the hundreds (200 – 100 = 100)

Answer: 100 + 20 + 1 = 121

50 12
62 = ~~60~~ ~~2~~
− 28 = 20 8
34 = 30 4

Partition into tens and units.

Look at the units. We cannot subtract 8 from 2 (2-8) so we need to take a 10 from the 60 in the tens column.

Cross out 60 and write 50 (-10).

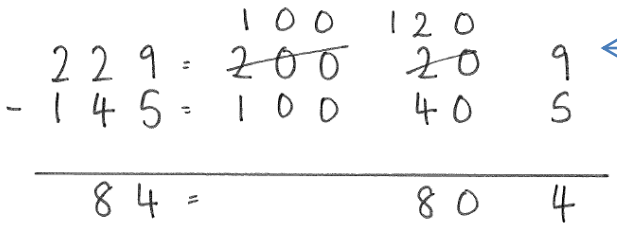
Cross out 2 and write 12 (+10).

Subtract the units (12 – 8 = 4), then tens (50 – 20 = 30)

Answer: 30 + 4 = 34

50 14
164 = 100 ~~60~~ ~~4~~
− 39 = 30 9
125 = 100 20 5

As above but don't forget the hundreds!



Partition into hundreds, tens and units.

Subtract the units (9 – 5 = 4).

Look at the tens. We cannot subtract 40 from 20 (20 – 40) so we need to take a 100 from the 200 in the hundreds column.

Cross out 200 and write 100 (-100).

Cross out 20 and write 120 (+100).

Subtract the tens (120 – 40 = 80), then the hundreds (100 – 100 = 0)

Answer: 80 + 4 = 84

Partition into hundreds, tens and units.

Look at the units. We cannot subtract 6 from 5 (5 – 6) so we need to take a 10 from the 10 in the tens column.

Cross out 10 and write 0 (-10).

Cross out 5 and write 15 (+10). Subtract the units (15 – 6 = 9)

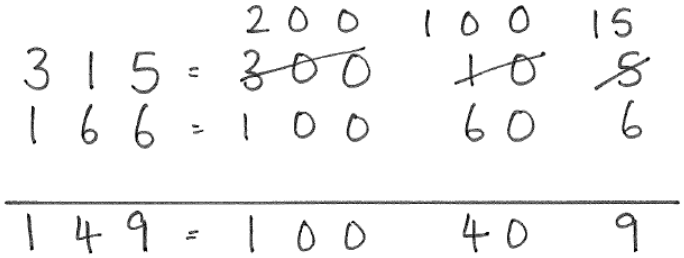
Look at the tens. We cannot subtract 60 from 0 (0 - 60) so we need to take a 100 from the 300 in the hundreds column.

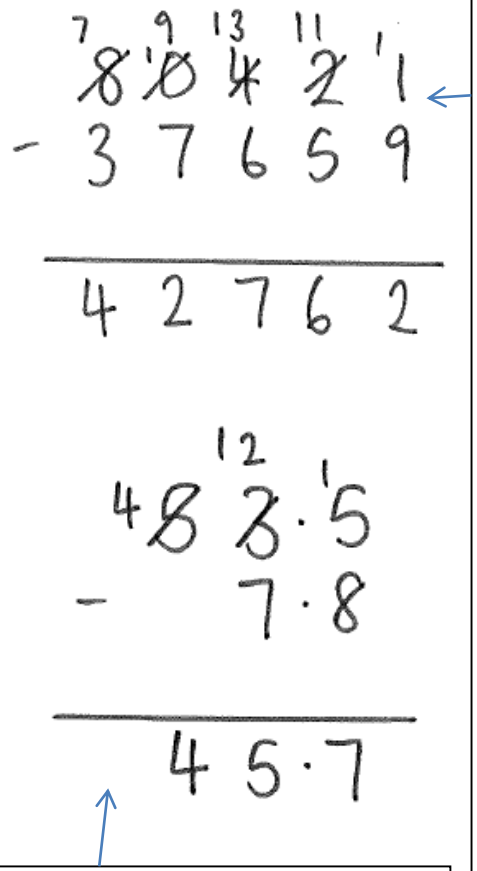
Cross out 300 and write 200 (-100).

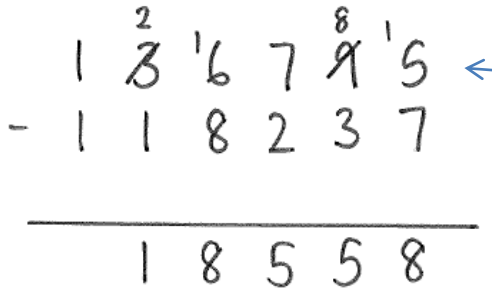
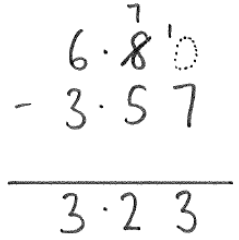
Cross out 0 and write 100 (+100).

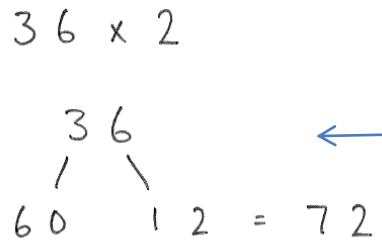
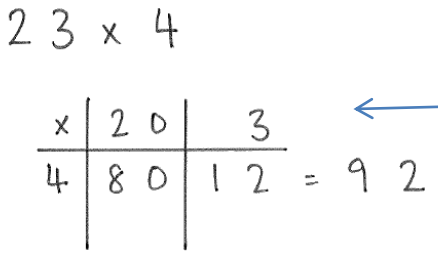
Subtract the tens (100 – 60 = 40), then the hundreds (200 – 100 = 100)

Answer: 100 + 40 + 9 = 149

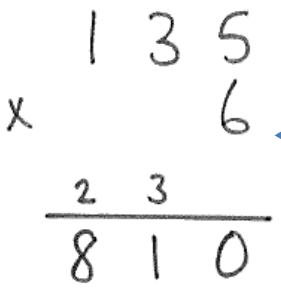
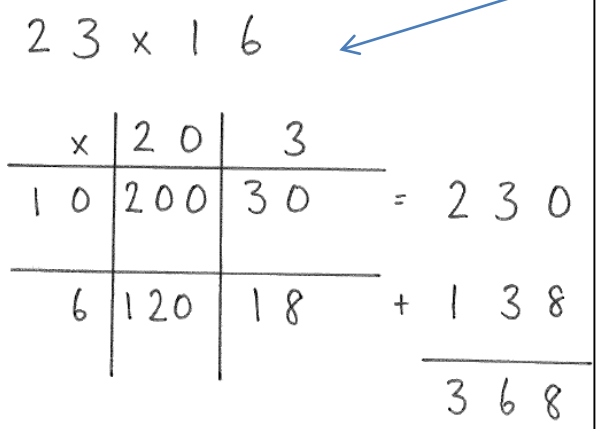


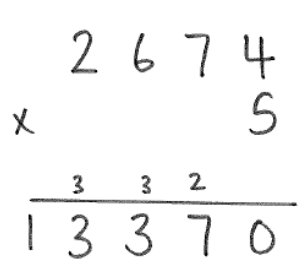
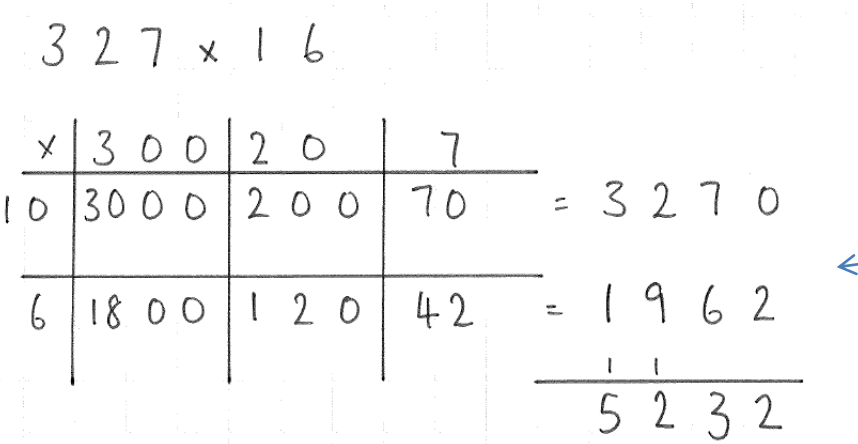
Year 5 Subtraction -	Use compact or expanded column subtraction to subtract numbers with up to 5 digits	 As above but start with the tenths and keep the decimal point in line. Remember to include a decimal point in the answer. Look at the units. We cannot subtract 9 from 1 (1 – 9) so we need to take 1 from the 2 in the tens column. Cross out 2 and write 1 in the tens column. Write 1 in the units column to make 11. Subtract the units (11 – 9 = 2) Look at the tens. We cannot subtract 5 from 1 (1 - 5) so we need to take 1 from the 4 in the hundreds column. Cross out 4 and write 3 in the hundreds column. Write 1 in the tens column to make 11. Subtract the tens (11 – 5 = 6). Look at the hundreds. We cannot subtract 6 from 3 (3 - 6) so we need to take 1 from the 0 in the thousands column. But we can't! So instead we take 1 from the 8 in the ten thousands column. Cross out 8 and write 7 in the ten thousands column. Write 1 in the thousands column to make 10. Now we can take 1 from the 10 in the thousands column. Cross out 10 and write 9 in the thousands column. Write 1 in the hundreds column to make 13. Subtract the hundreds (13 – 6 = 7). Subtract the thousands (9 - 7 = 2). Subtract the ten thousands (7 – 3 = 4)

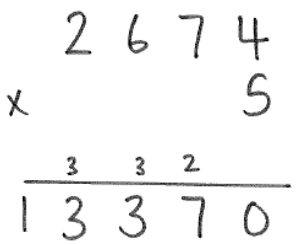
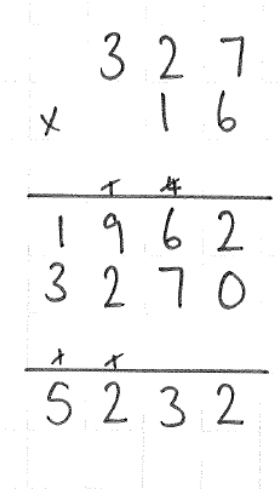
Year 6 Subtraction -	Use column subtraction to subtract numbers with up to 6 digits	 See the example from Year 5 subtraction. 6·8 - 3·57  Set out the question in columns making sure the decimal points are in line. Look at the hundredths column. There is no number to subtract the 7 from so add a 0 to make the question 6.80 – 3.57. Then proceed as above.

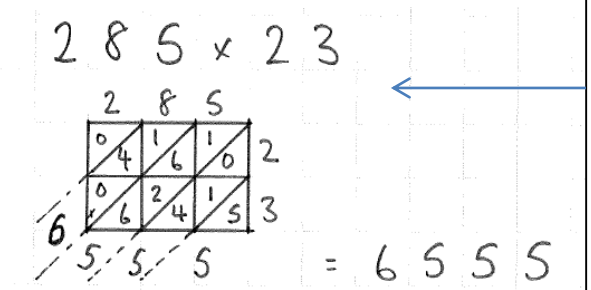
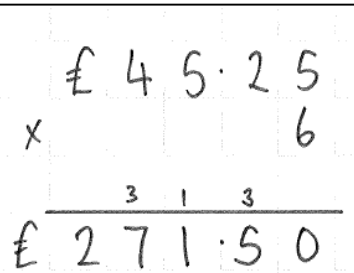
Year 2 Multiplication x	Begin to double 2-digit numbers less than 50	 Double the tens (double 30 = 60) Double the units (double 6 = 12) Answer: 60 + 12 = 72
	Begin to use partitioning (grid multiplication) to multiply 2-digit numbers by 'friendly' 1-digit numbers	 Draw a grid. Partition 23 into tens and units (20 + 3) and write across the top of the grid. Write the 4 at the side of the grid. Multiply 20 x 4 = 80 Multiply 3 x 4 = 12 Answer: 80 + 12 = 92

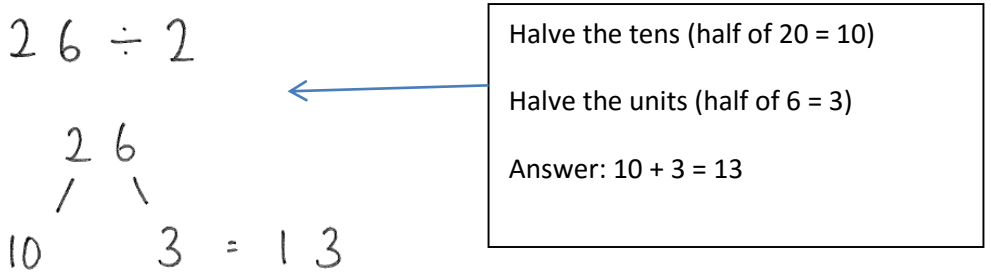
Year 3 Multiplication x	Use partitioning (grid multiplication) to multiply 2-digit and 3-digit numbers by 'friendly' 1-digit numbers	23 x 4 x | 20 | 3 4 | 80 | 12 = 92 Draw a grid. Partition 23 into tens and units (20 + 3) and write across the top of the grid. Write the 4 at the side of the grid. Multiply 20 x 4 = 80 Multiply 3 x 4 = 12 Answer: 80 + 12 = 92

Year 4 Multiplication x	Use a vertical written method to multiply a 1-digit number by a 3-digit number	 Multiply the units (6 x 5 = 30). Write 0 beneath the line in the units column and carry 3 tens above the line into the tens column. Multiply the tens (6 x 3 = 18). Add the extra 3 tens (18 + 3 = 21). Write the 1 beneath the line in the tens column and carry 2 hundreds above the line in the hundreds column. Multiply the hundreds (6 x 1 = 6). Add the extra 2 hundreds (6 + 2 = 8).
	Use an efficient written method to multiply a 2-digit number by a number between 10 and 20 by partitioning (grid method)	 Draw a grid. Partition 23 into tens and units (20 + 3) and write across the top of the grid. Partition 16 into tens and units (10 + 6) and write down the side of the grid. Multiply 10 x 20 = 200 Multiply 10 x 3 = 30 Multiply 6 x 20 = 120 Multiply 6 x 3 = 18 Add 200 + 30 = 230; add 120 + 18 = 138 Answer: 230 + 138 = 368

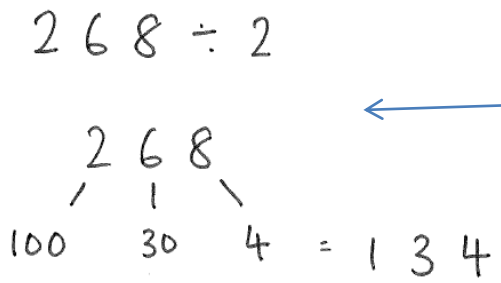
Year 5 Multiplication x	Use short multiplication to multiply a 1-digit number by a number with up to 4 digits Use long multiplication to multiply 3-digit and 4-digit numbers by a number between 11 and 20	 Multiply the units (5 x 4 = 20). Write 0 beneath the line in the units column and carry 2 tens above the line into the tens column. Multiply the tens (5 x 7 = 35). Add the extra 2 tens (35 + 2 = 37). Write the 7 beneath the line in the tens column and carry 3 hundreds above the line in the hundreds column. Multiply the hundreds (5 x 6 = 30). Add the extra 3 hundreds (30 + 3 = 33). Write the 3 beneath the line in the hundreds column and carry 3 thousands above the line in the thousands column. Multiply the thousands (5 x 2 = 10). Add the extra 3 thousands (10 + 3 = 13) and write 3 beneath the line in the thousands column and 1 beneath the line in the ten thousands column.  See example for Year 4 multiplication

Year 6 Multiplication x	Use short multiplication to multiply a 1-digit number by a number with up to 4 digits Use long multiplication to multiply a 2-digit number by a number with up to 4 digits	 See example for Year 5 multiplication  Begin by multiplying 327 x 6 Multiply the units (6 x 7 = 42). Write 2 beneath the line in the units column and carry 4 tens above the line into the tens column. Multiply the tens (6 x 2 = 12). Add the extra 4 tens (12 + 4 = 16). Write the 6 beneath the line in the tens column and carry 1 hundred above the line in the hundreds column. Multiply the hundreds (6 x 3 = 18). Add the extra 1 hundred (18 + 1 = 19). Write the 9 beneath the line in the hundreds column and 1 beneath the line in the thousands column. Next multiply 327 x 10. Start a new row. Always write a 0 first in the units column. Now you can multiply by 1. Multiply the units (1 x 7 = 7). Write 7 in the tens column. Multiply the tens (1 x 2 = 2). Write 2 in the hundreds column. Multiply the hundreds (1 x 3 = 3). Write 3 in the thousands column. Add 1962 + 3270 = 5232

Year 6 Multiplication x	Use short multiplication to multiply a 1-digit number by a number with 1 or 2 decimal places, including amounts of money	 See example for Year 5 multiplication. Keep the decimal point in line and remember to include it in your answer. 	This is the lattice method. Set out the grid as shown. Multiply 2 x 2 = 4 (write as 04 in the grid). Multiply 8 x 2 = 16 Multiply 5 x 2 = 10 Multiply 2 x 3 = 6 (write as 06 in the grid). Multiply 8 x 3 = 24 Multiply 5 x 3 = 15 Starting from the bottom right corner, add the diagonals and write the total between the dotted lines. 5 0 + 1 + 4 = 5 1 + 6 + 2 + 6 = 15 (write 5 and carry 1 into the next diagonal) 1 + 4 + 0 + 1 = 6 0 Answer: 6555

Year 2 Division ÷	Begin to halve numbers to 40	

Year 3 Division ÷	Halve numbers Perform divisions just above the 10th multiple understanding how to give a remainder as a whole number	

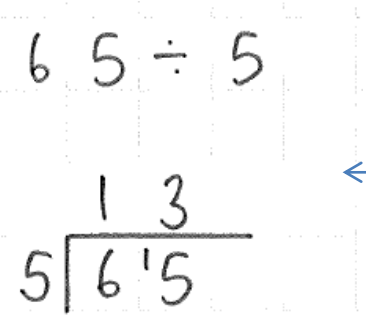


Halve the hundreds (half of 200 = 100)

Halve the tens (half of 60 = 30)

Halve the units (half of 8 = 4)

Answer: 100 + 30 + 4 = 134



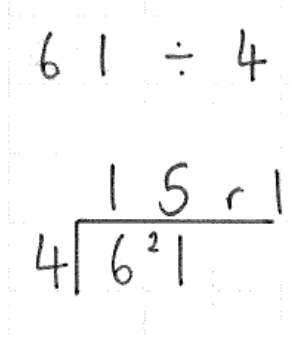
The bus shelter! Divide 6 by 5 (6 ÷ 5 = 1 remainder 1)

Write 1 above the line above the 6 and carry the 1 remainder in front of the 5 to make 15.

Divide 15 by 5 (15 ÷ 5 = 3).

Write 3 above the line above the 5.

Answer: 65 ÷ 5 = 13



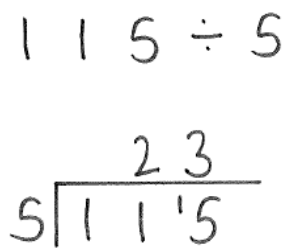
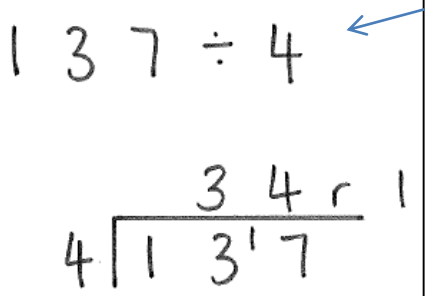
The bus shelter! Divide 6 by 4 (6 ÷ 4 = 1 remainder 2)

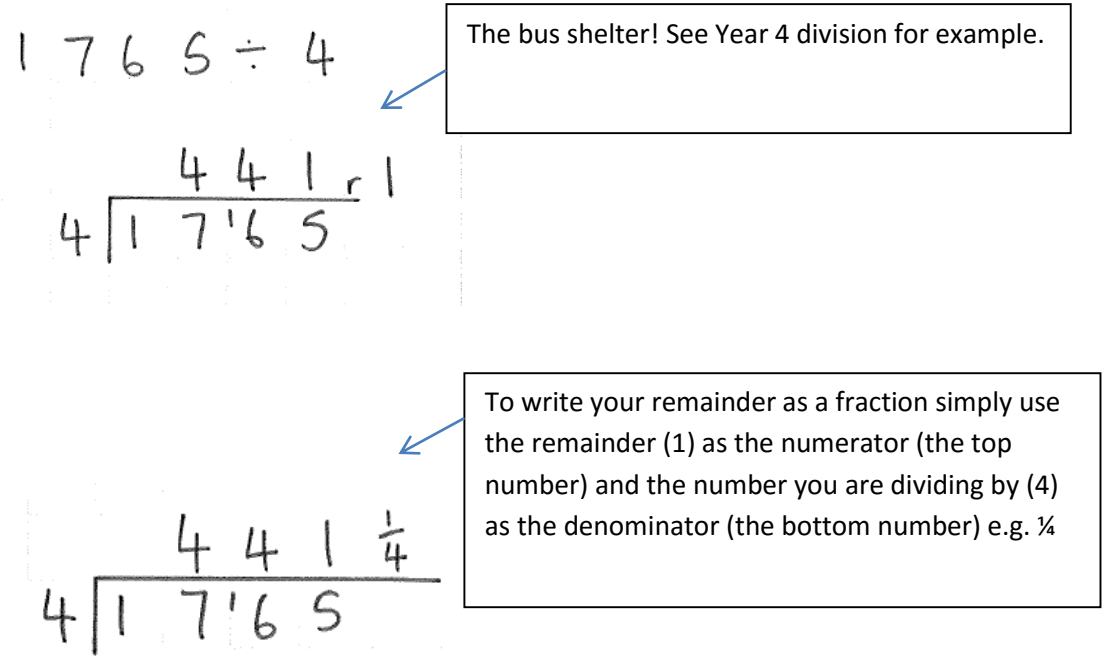
Write 1 above the line above the 6 and carry the 2 remainder in front of the 1 to make 21.

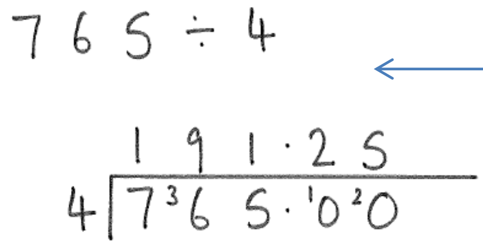
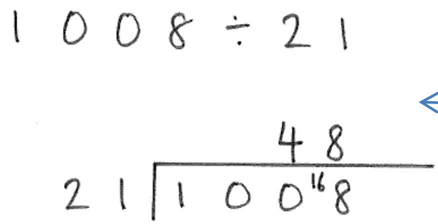
Divide 21 by 4 (21 ÷ 4 = 5 remainder 1).

Write 5 above the line above the 1 and r1 to show the remainder.

Answer: 61 ÷ 4 = 15 r1

Year 4 Division ÷	Use a written method to divide a 2-digit or a 3-digit number by a 1-digit number Give remainders as whole numbers	 The bus shelter! Look at the first number (1). You cannot divide 1 by 5 so look at the second number (1) as well. Divide 11 by 5 (11 ÷ 5 = 2 remainder 1) Write 2 above the line above the second 1 and carry the 1 remainder in front of the 5 to make 15. Divide 15 by 5 (15 ÷ 5 = 3). Write 3 above the line above the 5. 115 ÷ 5 = 23  The bus shelter! Look at the first number (1). You cannot divide 1 by 4 so look at the second number (3) as well. Divide 13 by 4 (13 ÷ 4 = 3 remainder 1) Write 3 above the line above the 3 and carry the 1 remainder in front of the 7 to make 17. Divide 17 by 4 (17 ÷ 4 = 4 remainder 1). Write 4 above the line above the 7 and r1 to show the remainder. 137 ÷ 4 = 34 r1

Year 5 Division ÷	Use short division to divide a number with up to 4 digits by a number ≤ 12 Give remainders as whole numbers or as fractions	

Year 6 Division ÷	Use short division to divide a number with up to 4 digits by a 1-digit or a 2-digit number Give remainders as whole numbers or as fractions or as decimals	 The bus shelter! To write your remainder as a decimal begin the division as above. 7 ÷ 4 = 1 remainder 3 36 ÷ 4 = 9 5 ÷ 4 = 1 remainder 1 Add a decimal point and a 0 after the decimal point. Carry the 1 remainder to the 0 after the decimal point to make 10. 10 ÷ 4 = 2 remainder 2 Add another 0. Carry the 2 remainder to make 20. 20 ÷ 4 = 5
	Use long division to divide 3-digit and 4-digit numbers by 'friendly' 2-digit numbers	 The bus shelter! 100 ÷ 21 = 4 remainder 16 168 ÷ 21 = 8 1008 ÷ 21 = 48 If it helps, write out multiples of 21… 21, 42, 63, 84, 105, 126, 147, 168