

Year 6 Autumn 1 • Arithmetic • Commentary chart

Q. no.	Abacus objective	Outgoing National curriculum level	Answers	Marks	Common difficulties	Advice
1	NPV.62 Understand the effect of multiplying or dividing a given number by 10, 100 or 1000; answers < 100 000 and with not more than 2 decimal places	L5	0.38	1	The combination of the two operations (multiplication and division) results in a variety of incorrect answers, e.g. 3.8, 38, 380.	A good strategy is to jot down the answer to the first part before moving to the second part, i.e. $3.8 \times 100 = 380$; $380 \div 1000 = 0.38$. Children still confused about multiplying and dividing by 10, 100 and 1000 need to write numbers on a place-value grid to see the effect of doing this in terms of direction and number of digit shifts.
2	NPV.62 Understand the effect of multiplying or dividing a given number by 10, 100 or 1000; answers < 100 000 and with not more than 2 decimal places	L5	590	1	Similar difficulties to question 1 occur. Possible errors are 59 and 5900.	See advice for question 1.
3	WAS.71 Add 5-digit numbers using column addition	L4	53 973	1	Errors involving carrying are the most common – an answer of 53 863 or 73 863 would suggest that this has happened. Some arithmetical errors in this and the following addition questions may be due to children rushing rather than not knowing basic addition bonds.	Make sure children are marking down digits for carrying in the right place. If necessary use the expanded method.
4	WAS.73 Add decimal numbers using column addition	L4	42.73	1	This question involves carrying between each successive column so check that this hasn't caused problems, particularly when carrying across the decimal point.	A good strategy is to put a decimal point in the answer line before doing the calculation, which then proceeds as for a whole number column addition.
5	WAS.73 Add decimal numbers using column addition	L5	31.95	1	Here children need to rewrite the addition as a column addition so errors can occur where the digits are not aligned correctly.	Children can use column headings (10s, 1s, 0.1s, 0.01s) to help align digits correctly.
6	PRA.82 Use order of operations and brackets for calculations involving the four operations	L5	8	1	An answer of 7 may indicate a child has simply divided 42 by 6 and then not followed through with the second step. Other errors include using incorrect multiplication and division facts, giving answers such as 6 and 9.	Remind children to check their answer by showing the separate calculations, e.g. $56 \div 8 = 7$; $7 \times 6 = 42$. Multiplication facts and corresponding division facts have to be practised regularly even where children have learnt them in earlier years.

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7	PRA.82 Use order of operations and brackets for calculations involving the four operations	L5	6	1	An answer of 216 would suggest a child has multiplied 36 (from 4×9) by 6 rather than divided it. Other errors, e.g. 5 or 7, may suggest wrongly recalled multiplication facts.	See advice for question 6.
8	WAS.76 Subtract 5- and 6-digit numbers using column subtraction	L4	16 634	1	The question involves multiple exchanges which may be tricky for some. An answer of 23 446 suggests a child has simply taken the smaller from the larger digit in each column.	If children are really confused with multi-digit column subtractions, practise using the expanded method or practise examples using fewer digits or fewer exchanges.
9	WAS.76 Subtract 5- and 6-digit numbers using column subtraction	L4	215.43	1	Exchanging across the decimal point can confuse some as well as exchanging through multiple columns.	As with decimal column addition, putting the decimal point in the answer line before starting the calculation can help.
10	WMD.77 Use long multiplication to multiply 3- and 4-digit numbers by teen numbers	L5	50 688	2	An answer of 28 160 suggests that the place value aspect of multiplying by 10 has been ignored. Other errors may be due to mistakes in recalling 8 times-tables facts or rushing and not checking the final addition part.	Encourage children to estimate – an approximate answer of 50 000 (2500×20) should alert children that 28 160 couldn't be correct.