

Hand-in problems 6 for TSTE18 Digital Arithmetic

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The solutions to the hand-in problems should be submitted at most one week after the corresponding seminar to result in prioritized corrections.

These problems should be solved on an **individual** basis. Each student has a consecutive number assigned during the first seminar (or through email contact with the examiner) and should solve the problems using the corresponding data.

Note that the problems should be solved **“by hand”**. Hence, you will need to provide some evidence that you actually solved the problem and not just ran some software for it.

On each sheet of paper write name, personal id number, and student-id, as well as the consecutive number assigned to you.

1 Non-restoring division

Perform a radix-2 non-restoring division of the following numbers resulting in an eight bit quotient and a remainder

Student no.	Dividend	Divisor
1	81	85
2	90	90
3	89	103
4	75	77
5	71	85
6	113	80
7	111	108
8	116	116
9	83	84
10	97	85
11	117	115
12	100	81
13	107	79
14	93	89
15	98	126
16	112	126
17	80	98
18	68	112
19	102	118
20	126	123

2 SRT division

Perform a radix-2 SRT division of the following numbers resulting in an eight bit quotient and a remainder

Student no.	Dividend	Divisor
1	108	126
2	83	73
3	107	121
4	103	121
5	77	112
6	86	91
7	75	116
8	104	111
9	115	69
10	124	96
11	112	111
12	117	75
13	93	103
14	123	117
15	121	101
16	101	118
17	67	120
18	90	67
19	111	75
20	74	103