MIE-ARI
(Computer Arithmetic – Homework 3)

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https://courses.fit.cvut.cz/MIE-ARI/

Task 1 – Decimal codes - Convertion

Convert decimal number to BCD code using 2's complement representation.
For BCD code use 4 digits.
Specify an allowable range of numbers.

a) **+123**

b) **-123**

c) **+789**

d) **-789**

Task 2 – Decimal codes - Addition

Add two decimal numbers represented in BCD.
For the addition of each digit use the binary system and correct the result.
For BCD code use 4 digits.
Specify an allowable range of numbers.

a)

532

+123

b)

237

+432

Task 3 – Decimal codes - Subtraction

Subtract two decimal numbers represented in BCD.
For the subtraction of each digit use the binary system and correct the result.
For BCD code use 4 digits.
Specify an allowable range of numbers.

a)

345

-345

b)

345

-123

Task 4 – Decimal codes - Subtraction

Subtract two decimal numbers represented in Ga+F (+3 code) .
For the subtraction of each digit use the binary system and correct the result.
For Ga+F (+3 code) use 4 digits.
Specify an allowable range of numbers.

a)

345

-345

b)

345

-123

Advice: Use the information in lecture 3 (decimal codes),
the conversion table on slide 6, and the correction table on slide 7.

Task 5 – Decimal codes - Subtraction

Subtract two decimal numbers represented in Ga+F (3a+2 code).
For the subtraction of each digit use the binary system and correct the result.
For Ga+F (3a+2 code) use 4 digits.
Specify an allowable range of numbers.

a)

345

-345

b)

345

-123

Advice: Use the information in lecture 3 (decimal codes),
the conversion table on slide 6, and the correction table on slide 7.

Notes I.

Notes II.