

Discrete Structure

Quiz no. 2

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- (a) 1001 is divided by 13
(b) -111 is divided by 11

(a) $a = 1001$
 $d = 13$

Let us determine the quotient and remainder.

$$a = 1001 = 77 \cdot 13 = 77 \cdot 13 + 0 \\ = 77d + 0$$

The quotient is then the coefficient of d : $q = 77$

The remainder is the constant $r = 0$ (with $0 \leq r < 13$).

(b)

-111 is divided by 11

$$a = -111$$

$$b = 11$$

let us determine the quotient determined

$$a = -111 = -121 + 10$$

$$= (-11) \cdot 11 + 10$$

$$= (-11)d + 10$$

quotient is thus the coefficient
of

$$d : q = -11$$

The remainder is the
constant : $r = 10$