Criptografie - Tema 4

5) A(n2) $n = 12103$

$\sqrt{n} =$

$\sqrt{12\,103}$ | 110

1 | $21 \cdot 1 = 21$

= 21 |

21 | $220 \cdot 0 = 0$

= = 03

0

= 3

$[\sqrt{n}] = 110$

a) $t = [\sqrt{n}] + 1 = 111$

$t^2 = 111^2 = (110+1)^2 = 12100 + 220 + 1 = 12321$

$t^2 - n = 218$

b) $t = 112$

$t^2 = 12321 + 222 + 1 = 12544$

$t^2 - n = 441 = 21^2 = b^2$

$t^2 - b^2 = 112^2 - 21^2 = (112-21)(112+21) = 91 \cdot 133$

$n = 91 \cdot 133$