

:

20

$2x_1x_2 + 2x_3x_4$

15

$M_n^0(P)$

P

n

1

$M_n^0(P)$

$P^{n \times n}$

2

$M_n^0(P)$

15

$A \in P^{n \times n}$

$f(x)$

$f_1(x)$

$f_2(x)$

P

$f(x) = f_1(x)f_2(x)$

$(f_1(x), f_2(x)) = \mathbf{1}$

W

W_1

W_2

$f(A)X = \mathbf{0}, f_1(A)X = \mathbf{0}, f_2(A)X = \mathbf{0}$

$W = W_1 \oplus W_2$

15
 C
 n
 A
 $A = B + C$
 B
 $BC = CB$

15
 A
 n
 n
 X
 $X^2 = A$

10

15

$l_1: \begin{cases} x = 1 \\ y = z \end{cases}, \quad l_2: \begin{cases} x = -1 \\ y = -z \end{cases}, \quad l_3: \frac{x-2}{-3} = \frac{y+1}{4} = \frac{z+2}{5}$

