

- 0 1' :("9 2 \$!1* ,%

$$A = \begin{pmatrix} 1 & 1 & 1 & 1 \\ 2 & 0 & 1 & 1 \\ 1 & 1 & 0 & 1 \end{pmatrix}$$

! A+ *!\$ *B+)" 1(: 71' + (7) < (9 (:1' " !*+4+1 \$ 9' (+ !)2\$ 1 7 \$!1* ,
 +1' \$!1* , -
 . A+ !)++ C(*7! " \$!1(1(+("0 1' '(\$2 ()+" !*+4+1 \$ 9' (+ (:: 1
 \$!1* , +1' \$!1* , -
 0!)!1 det A^T A .

-! : +! \$!1* , +) ' 1' !1. (1' ! 7 A¹ !0 1 2 * 1* +/+ (9 1' !1 det A det A¹ .

. -@+ 7 * 1' :("9 2 +4+1 \$%

$$\begin{pmatrix} 5 & k & x & 2y & z & 1 \\ 2x & 2 & k & y & 2z & 2 \\ x & 2y & 5 & k & z & 1 \end{pmatrix}$$

(* 9' !10!) + (: </ :! 4/1' +4+1 \$ '!+% (+(")1(/ !) D) +(")1(/ : 1 "4
 \$! 4+(")1(+

&- 7 !"" \$!1* + +) ' 1' !1%

$$! A^T A = \begin{pmatrix} 9 & 3 & 6 \\ 3 & 5 & 4 \\ 6 & 4 & 6 \end{pmatrix} ! 7$$

- ! 76!*!\$ 1 * 6+) ' 1' !11' 6(1+ A 1, 1,0 ,B 2,0,1 ,C 1,p,3 D 2,2p,5 lie
1' +!\$ 6"! -

. 72 *!"! 76!*!\$ 1* D)!1 (+ (: 1' 6"! (! 21' 6(1+ &/ / / / /
perpendicular theXY 6"! -

0 1' 6(1+ / / ! 7 &/ / - 71' 6(1 (1' !, ++) ' 1' !11' !* ! (:
the triangle ABC + -

>-

$$-! \frac{1}{2} \cdot \frac{1}{2}t, \frac{1}{2}t, 0, t \quad t(\&$$

$$-! \quad \%A+ 1' \quad :! 11' !11' \quad 7 1 *\$ \quad ! 1 (: ! \$!1*, 9 1' \quad 1 2 * \quad 1* + +! \quad 1 2 *-$$

$$\cdot \quad i k \quad 0 \quad ii k)0 \quad k)6 \quad iii k \quad 6.$$

$$\&- ! \quad \begin{array}{ccc} 312 \\ 021 \\ 001 \end{array} \cdot \quad \begin{array}{cc} 0 & 2 \\ 2 & 0 \end{array} \quad \begin{array}{cc} 0 & 2 \\ 2 & 0 \end{array} \quad \frac{1}{5} I_3$$

$$=- ! \quad \frac{\bar{6}}{2} \cdot \quad 1, 1, \quad 2 \quad \frac{*}{6}$$

$$-! \quad p \quad 2$$

$$\cdot \quad x \quad 3 \quad 3\%, y \quad \%, z \quad t! * \quad 1' \quad 6! *! \$ \quad 1* \quad D)! 1 (\quad +! \quad 7 \quad x \quad 3 \quad y \quad 3 \quad 0 \quad +1' \quad 2 \quad *!" \quad D)! 1 (\quad -$$

$$C \quad 0, \frac{11 + 1946}{5}, 0$$

