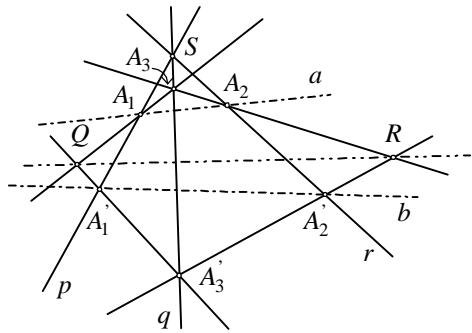


1. $A_1A_2A_3$ $A_1'A_2'A_3'$ A_1A_1'
 A_2A_2' A_3A_3' P A_1A_2
 $A_1'A_2', R$ A_2A_3 $A_2'A_3', Q$ A_1A_3 $A_1'A_3'$
 P, Q, R !
 $A_1A_2A_3$ $\Psi,$
 $A_1'A_2'A_3'$
 $A_1A_1', A_2A_2', A_3A_3'$
 S $A_1A_2 \cap A_1'A_2' =$
 $P, A_2A_3 \cap A_2'A_3' = R$ $A_1A_3 \cap A_1'A_3' =$
 $Q. (I).$
 B
 $\Psi,$ A_3
 $\Psi,$ SA_1, SA_2
 SB R
 SB Ψ $SA_3,$ SB
 $C,$ C $A_3',$
 $SA_3.$ Σ A_1, A_2, B, Π
 $A_1'A_2'$ $\Pi,$ $A_1', A_2' C.$ A_1A_2 $\Sigma,$
 $\Sigma \cap \Pi \neq \emptyset,$ A_1A_2 $A_1'A_2'$
 BA_1 C p' $P.$
 C_1' BA_1 CA_1' SA_1B
 $A_3'A_1'$ $A_1A_2A_3$ $A_1'A_2'A_3'$ B_1 CA_1' $\Psi - A_3A_1$
 $Q.$ BA_2 CA_2' $R.$

Q' — $BA_1 CA_1'$, $\Sigma \Pi$,
 p' , R' p' ,
 Ψ
 A_3A_1 , CA_1' $A_3'A_1'$,
 Q' Ψ
 A_3A_1 $A_3'A_1'$, \dots Q .
 R' R .
 p p' Ψ ,
 Q R , Q' R' (p' p),
 p . P Ψ ,
 p , P P p' ,
 P, Q R p ,
1. 10 10 ,
 3 .
 $A_1, A_2, A_3, A_1', A_2', A_3', S$,
 P, Q R $. I.$
 ϵ ϵ ,
 k k
 v_k
 1 10_3 .
2.
 Q a b
 X a b
 S ,
 Q , a
 $b. (. 2).$
 p, q r
 S , Q a b . A_1 A_1'
 p
 a b , A_2 A_2' p
 r a b
 A_3 A_3' q QA_1 QA_1'
 $A_1A_2A_3$ $A_1'A_2'A_3'$
 $1,$ R A_2A_3 $A_2'A_3'$, (
 A_1A_3 $A_1'A_3'$ Q), R, Q X
 RQ .
2. 1 2 3 $1'$ $2'$ $3'$
 1 $1'$, 2 $2'$, 3 $3'$
 A_iA_j $A_i'A_j'$, Q A_iA_k $A_i'A_k'$, R



Crt. 2

$A_j A_k \quad A_j' A_k' \quad (i, j, k \in \{1, 2, 3\}),$ {1,

QR

$A_i A_j \quad A_i' A_j'$

Ψ

$S, \quad A_1 A_2 A_3 \quad A_1' A_2' A_3'$

$\cap \quad A_1 A_2 A_3 = R \quad A_1' A_2' A_3' = Q, \quad A_1 A_2 A_3 \cap A_1' A_2' A_3' = R$

). **B** Ψ

$\Psi \quad A_1 A_2 A_3 \quad A_1' A_2' A_3'$

SB **C**

$BA_1 \cap CA_1' = Q' \quad BA_2 \cap CA_2' = R'$

Q' Ψ

$Q, \quad A_3 A_1 \quad A_3' A_1' -$

$BA_1 \quad CA_1'$,

$R' \quad R. \quad \Sigma$ $A_1, A_2 \quad B,$

Π $A_1', A_2' \quad C,$

$A_1 A_2 \quad A_1' A_2'$

$\Sigma \quad \Pi$

$\Sigma \quad \Pi - \quad QR'$

QR' $\Psi - \quad QR$

3. $A_1 A_2 A_3 \quad A_1' A_2' A_3'$

$A_1 A_1', A_2 A_2' \quad A_3 A_3'$

$A_1 A_2 A_3 \quad A_1' A_2' A_3'$

$A_1 A_1', A_2 A_2'$

$A_1 A_2 \quad A_1' A_3'$

$A_3 A_3'$ Ψ

$A_1' A_2', \quad A_1 A_3 \quad S$

$A_1 A_3 \quad A_1' A_3'$

(. 3).

$SA_1 A_3 \quad SA_1' A_3'$

$SA_1 : SA_1' = SA_3 : SA_3'$

$A_1 A_2 \quad A_1' A_2'$ $SA_1 : SA_1' =$

$SA_1 A_2 \quad SA_1' A_2'$ -

$SA_2 : SA_2'$

$SA_3 : SA_3' = SA_2 : SA_2'$

4. $A_2 A_3 \quad A_2' A_3'$

$A_1' A_2' A_3'$ $A_1 A_2 A_3$

$A_1 A_1', A_2 A_2' \quad A_3 A_3'$ P

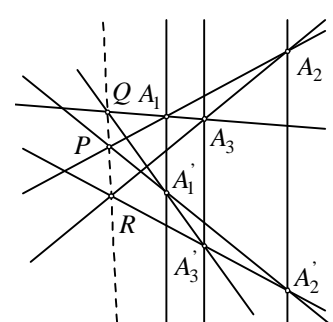
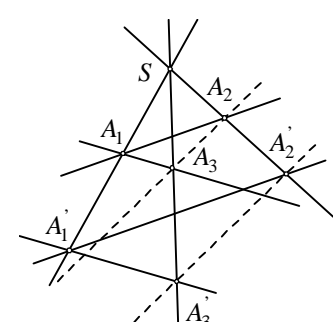
$A_1 A_2 \quad A_1' A_2', \quad Q$

$A_2 A_3 \quad A_2' A_3', \quad R$ $A_1 A_3$

$A_1' A_3', \quad P, Q \quad R$ $A_1' A_2' A_3'$

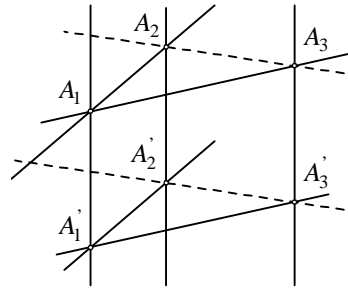
$A_1 A_2 A_3 \quad A_1' A_2' A_3'$

$\Psi,$



QR. , QR A_1A_2 $A_1'A_2'$
 6. $\begin{matrix} 1 & 2 & 3 \\ 1' & 2' & 3' \end{matrix}$

$A_1A_1', A_2A_2', A_3A_3'$
 $A_1'A_2', A_1A_3, A_1'A_3'$
 $A_1A_2A_1'A_2', A_1A_3A_1'A_3'$
 $\overline{A_1A_2}, \overline{A_1'A_2'}$
 $\overline{A_1A_3}, \overline{A_1'A_3'}$ (. 6).
 $A_2A_1A_3, A_2'A_1'A_3'$
 $A_1A_2A_3, A_1'A_2'A_3'$
 $A_2A_3A_1, A_2'A_3'A_1'$
 $A_1A_3, A_1'A_3'$
 $A_2A_3, A_2'A_3'$
 $A_1A_2A_3$



Crt. 6

$A_1'A_2'A_3'$

$A_1A_1', A_2A_2', A_3A_3'$

$A_1A_2A_3, A_1'A_2'A_3'$

(i) $P = A_1A_2 \cap A_1'A_2', Q = A_1A_3 \cap A_1'A_3', R = A_2A_3 \cap A_2'A_3'$

(ii) $A_iA_j, A_i'A_j'$ QR , $Q = A_iA_k \cap A_i'A_k', R = A_jA_k \cap A_j'A_k' (i, j, k \in \{1, 2, 3\})$

(iii) $A_1A_2A_3, A_1'A_2'A_3'$

$A_1A_2A_3, A_1'A_2'A_3'$

1 - 6

7. (Desarg)

8.

$A_1A_2A_3, A_1'A_2'A_3'$

$A_1A_2A_3, A_1'A_2'A_3'$

) A_1A_1', A_2A_2' (. 6),

$A_1A_2A_1'A_2', A_1A_2 = A_1'A_2'$

$A_1A_2A_3, A_1'A_2'A_3'$

$A_2A_3 = A_2'A_3'$

$A_2A_3A_2'A_3'$

$A_2A_3, A_2'A_3'$

$$\begin{aligned}
 & \text{A}_1\text{A}_1' \quad \text{A}_2\text{A}_2', \quad \text{A}_1\text{A}_2\text{A}_3 \quad \text{A}_1'\text{A}_2'\text{A}_3' \\
 & \text{S} (\quad . 3). \\
 \text{SA}_1\text{A}_2 \quad \text{SA}_1'\text{SA}_2' & , \quad \text{SA}_1:\text{SA}_2 = \text{SA}_1':\text{SA}_2' = \text{A}_1\text{A}_2:\text{A}_1'\text{A}_2' = k, \quad k \\
 & \text{A}_1\text{A}_2\text{A}_3 \quad \text{A}_1'\text{A}_2'\text{A}_3'
 \end{aligned}$$

$$\begin{aligned}
 & \text{A}_1\text{A}_1' \quad \text{A}_3\text{A}_3' \quad \text{T.} \quad \text{A}_1\text{A}_3 \quad \text{A}_1'\text{A}_3', \\
 & \text{TA}_1\text{A}_3 \quad \text{TA}_1'\text{A}_3', \quad \text{TA}_1:\text{TA}_1' = \text{TA}_3:\text{TA}_3' = \text{A}_1\text{A}_3:\text{A}_1'\text{A}_3' = \\
 \text{k.} & , \quad \text{A}_1\text{A}_1' \quad \text{X,} \quad \text{XA}_1:\text{XA}_1' = k \\
 & \text{SA}_1:\text{SA}_1' = \text{TA}_1:\text{TA}_1' = k, \quad \text{S} \quad \text{T} \\
 & \text{A}_3\text{A}_3' \quad \text{S} \quad \text{A}_1\text{A}_1' \quad \text{A}_2\text{A}_2', \\
 & \text{A}_1\text{A}_2\text{A}_3 \quad \text{A}_1'\text{A}_2'\text{A}_3'
 \end{aligned}$$

$$\begin{aligned}
 & \text{2:} \quad \text{A}_1\text{A}_2\text{A}_3 \quad \text{A}_1'\text{A}_2'\text{A}_3' \\
 & \text{R,} \quad \text{QR} \\
 & \text{A}_1\text{A}_2 \quad \text{A}_1'\text{A}_2', \quad \text{A}_1\text{A}_3 \cap \text{A}_1'\text{A}_3' = \text{Q}, \quad \text{A}_2\text{A}_3 \cap \text{A}_2'\text{A}_3' = \\
 \text{R} & \quad \text{QR} \quad \text{A}_1\text{A}_2 \quad \text{A}_1'\text{A}_2', \quad \text{QA}_1\text{A}_1' \quad \text{RA}_2\text{A}_2' \quad \text{QR} \\
 & \text{A}_1\text{A}_2 \quad \text{A}_1'\text{A}_2',
 \end{aligned}$$

$$\begin{aligned}
 & \text{A}_1\text{A}_1' \quad \text{A}_2\text{A}_2' (\quad . 5), \quad \text{QA}_1 \cap \text{RA}_2 = \text{A}_3, \\
 \text{QA}_1' \cap \text{RA}_2' = \text{A}_3', & \quad \text{QA}_1\text{A}_1' \quad \text{RA}_2\text{A}_2' \\
 & \text{5,} \quad \text{A}_3\text{A}_3' \quad \text{A}_1\text{A}_1' \quad \text{A}_2\text{A}_2',
 \end{aligned}$$

$$\begin{aligned}
 & \text{A}_1\text{A}_2\text{A}_3 \quad \text{A}_1'\text{A}_2'\text{A}_3' \\
 & \text{A}_1\text{A}_1' \quad \text{A}_2\text{A}_2' \quad \text{S} (\\
 \text{2).} & \quad \text{QA}_1 \cap \text{RA}_2 = \text{A}_3, \quad \text{QA}_1' \cap \text{RA}_2' = \text{A}_3', \quad \text{A}_1\text{A}_1' \cap \text{A}_2\text{A}_2' = \text{S}, \\
 \text{QA}_1\text{A}_1' \quad \text{RA}_2\text{A}_2' & \quad \text{4,} \quad \text{A}_3, \\
 \text{A}_3' \quad \text{S} & \quad \text{A}_3\text{A}_3' \quad \text{S} \\
 & \text{A}_1\text{A}_1' \quad \text{A}_2\text{A}_2', \quad \text{A}_1\text{A}_2\text{A}_3 \quad \text{A}_1'\text{A}_2'\text{A}_3'
 \end{aligned}$$

$$\begin{aligned}
 & \text{3:} \quad \text{P} = \text{A}_1\text{A}_2 \cap \text{A}_1'\text{A}_2', \quad \text{Q} = \text{A}_1\text{A}_3 \cap \text{A}_1'\text{A}_3' \quad \text{R} = \text{A}_2\text{A}_3 \cap \text{A}_2'\text{A}_3' \\
 & \quad \text{QA}_1\text{A}_1' \quad \text{RA}_2\text{A}_2' \quad \text{P} = \text{QR} \cap \text{A}_1\text{A}_2 \\
 & \cap \text{A}_1'\text{A}_2',
 \end{aligned}$$

$$\begin{aligned}
 & \text{A}_1\text{A}_1' \quad \text{A}_2\text{A}_2' (\quad . 4), \\
 \text{QA}_1\text{A}_1' \quad \text{RA}_2\text{A}_2' & \quad \text{2.} \quad \text{QA}_1 \cap \text{RA}_2 = \text{A}_3 \\
 \text{QA}_1' \cap \text{RA}_2' = \text{A}_3'. & \quad \text{2} \quad \text{A}_3\text{A}_3' \\
 & \text{A}_1\text{A}_1' \quad \text{A}_2\text{A}_2', \quad \text{A}_1\text{A}_2\text{A}_3 \quad \text{A}_1'\text{A}_2'\text{A}_3'
 \end{aligned}$$

$$\begin{aligned}
 & \text{A}_1\text{A}_1' \quad \text{A}_2\text{A}_2' \quad \text{S} (\quad . 1). \quad \text{QA}_1 \cap \\
 \text{RA}_2 = \text{A}_3 \quad \text{QA}_1' \cap \text{RA}_2' = \text{A}_3', & \quad \text{QA}_1\text{A}_1' \quad \text{RA}_2\text{A}_2' \\
 & \text{1,} \quad \text{S,} \quad \text{A}_3 \quad \text{A}_3' \\
 & \text{A}_3\text{A}_3' \quad \text{S} \quad \text{A}_1\text{A}_1' \quad \text{A}_2\text{A}_2', \\
 & \text{A}_1\text{A}_2\text{A}_3 \quad \text{A}_1'\text{A}_2'\text{A}_3'
 \end{aligned}$$

3. ABC XYZ

$YZ, ZX \quad XY$ $P, Q \quad R$

$\frac{a}{X' Y'}$

ABC XYZ

$P, Q \quad R$

XYZ

(7). a

$R \quad AB \quad BC. \quad a \cap$

$AB = X' \quad a \cap BC = Y'. \quad Z' = PY' \cap$

$QX'. \quad , XY \cap X'Y' = R; \quad XZ \cap XZ' =$

$Q \quad YZ \cap YZ' = P. \quad P, Q \quad R$

XYZ

XYZ'

8

$B \quad ZZ'$

$\frac{a}{X' Y'}$

$BZ'. \quad Z' = PY' \cap QX'$

$ZP \quad BC, \quad X \quad BZ' \quad AC \quad Z, Y$

$ABC \quad ZQ \quad AB. \quad XYZ$

Crt. 7

$XX' \quad YY'$

$B.$

$a \quad R \quad AB \quad BC$

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