# Simetrías del hexágono

Tarea Febrero 23

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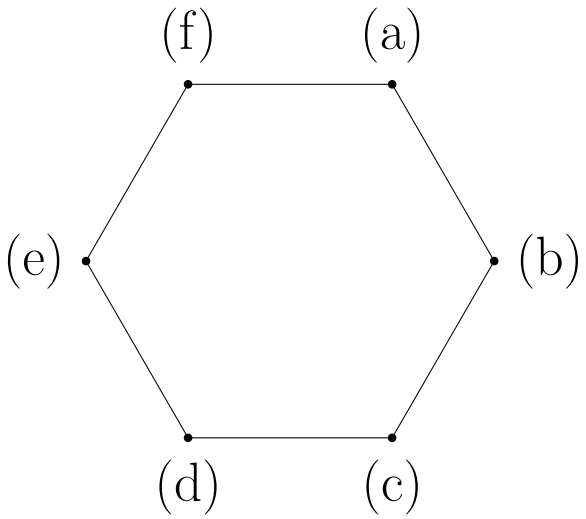


V = a, b, c, d, e, f

E = (a,b), (b,c), (c,d), (d,e), (e,f), (f,a)

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | a | b | c | d | e | f |
| 2 | b | c | d | e | f | a |
| 3 | c | d | e | f | a | b |
| 4 | d | e | f | a | b | c |
| 5 | e | f | a | b | c | d |
| 6 | f | a | b | c | d | e |
| 7 | f | e | d | c | b | a |
| 8 | e | d | c | b | a | f |
| 9 | d | c | b | a | f | e |
| 10 | c | b | a | f | e | d |
| 11 | b | a | f | e | d | c |
| 12 | a | f | e | d | c | b |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $s_0$ | $s_1$ | $s_2$ | $s_3$ | $s_4$ | $s_5$ | $s_6$ | $s_7$ | $s_8$ | $s_9$ | $s_{10}$ | $s_{11}$ | $s_{12}$ |
| $s_1$ | $s_1$ | $s_2$ | $s_3$ | $s_4$ | $s_5$ | $s_6$ | $s_7$ | $s_8$ | $s_9$ | $s_{10}$ | $s_{11}$ | $s_{12}$ |
| $s_2$ | $s_2$ | $s_3$ | $s_4$ | $s_5$ | $s_6$ | $s_1$ | $s_{12}$ | $s_7$ | $s_8$ | $s_9$ | $s_{10}$ | $s_{11}$ |
| $s_3$ | $s_3$ | $s_4$ | $s_5$ | $s_6$ | $s_1$ | $s_2$ | $s_{11}$ | $s_{12}$ | $s_7$ | $s_8$ | $s_9$ | $s_{10}$ |
| $s_4$ | $s_4$ | $s_5$ | $s_6$ | $s_1$ | $s_2$ | $s_3$ | $s_{10}$ | $s_{11}$ | $s_{12}$ | $s_7$ | $s_8$ | $s_9$ |
| $s_5$ | $s_5$ | $s_6$ | $s_1$ | $s_2$ | $s_3$ | $s_4$ | $s_9$ | $s_{10}$ | $s_{11}$ | $s_{12}$ | $s_7$ | $s_8$ |
| $s_6$ | $s_6$ | $s_1$ | $s_2$ | $s_3$ | $s_4$ | $s_5$ | $s_8$ | $s_9$ | $s_{10}$ | $s_{11}$ | $s_{12}$ | $s_7$ |
| $s_7$ | $s_7$ | $s_8$ | $s_9$ | $s_{10}$ | $s_{11}$ | $s_{12}$ | $s_1$ | $s_2$ | $s_3$ | $s_4$ | $s_5$ | $s_6$ |
| $s_8$ | $s_8$ | $s_9$ | $s_{10}$ | $s_{11}$ | $s_{12}$ | $s_7$ | $s_6$ | $s_1$ | $s_2$ | $s_3$ | $s_4$ | $s_5$ |
| $s_9$ | $s_9$ | $s_{10}$ | $s_{11}$ | $s_{12}$ | $s_7$ | $s_8$ | $s_5$ | $s_6$ | $s_1$ | $s_2$ | $s_3$ | $s_4$ |
| $s_{10}$ | $s_{10}$ | $s_{11}$ | $s_{12}$ | $s_7$ | $s_8$ | $s_9$ | $s_4$ | $s_5$ | $s_6$ | $s_1$ | $s_2$ | $s_3$ |
| $s_{11}$ | $s_{11}$ | $s_{12}$ | $s_7$ | $s_8$ | $s_9$ | $s_{10}$ | $s_3$ | $s_4$ | $s_5$ | $s_6$ | $s_1$ | $s_2$ |
| $s_{12}$ | $s_{12}$ | $s_7$ | $s_8$ | $s_9$ | $s_{10}$ | $s_{11}$ | $s_2$ | $s_3$ | $s_4$ | $s_5$ | $s_6$ | $s_1$ |

$$s_1 = \begin{pmatrix} a & b & c & d & e & f \\ a & b & c & d & e & f \end{pmatrix} \qquad s_7 = \begin{pmatrix} a & b & c & d & e & f \\ f & e & d & c & b & a \end{pmatrix}$$

$$s_2 = \begin{pmatrix} a & b & c & d & e & f \\ b & c & d & e & f & a \end{pmatrix} \qquad s_8 = \begin{pmatrix} a & b & c & d & e & f \\ a & f & e & d & c & b \end{pmatrix}$$

$$s_3 = \begin{pmatrix} a & b & c & d & e & f \\ c & d & e & f & b & a \end{pmatrix} \qquad s_9 = \begin{pmatrix} a & b & c & d & e & f \\ e & d & c & b & a & f \end{pmatrix}$$

$$s_4 = \begin{pmatrix} a & b & c & d & e & f \\ d & e & f & a & b & c \end{pmatrix} \qquad s_{10} = \begin{pmatrix} a & b & c & d & e & f \\ d & c & b & a & f & e \end{pmatrix}$$

$$s_5 = \begin{pmatrix} a & b & c & d & e & f \\ e & f & a & b & c & d \end{pmatrix} \qquad s_{11} = \begin{pmatrix} a & b & c & d & e & f \\ c & b & a & f & e & d \end{pmatrix}$$

$$s_6 = \begin{pmatrix} a & b & c & d & e & f \\ f & a & b & c & d & e \end{pmatrix} \qquad s_{12} = \begin{pmatrix} a & b & c & d & e & f \\ b & a & f & e & d & c \end{pmatrix}$$

**Identidad = $\mathbf{S}_1$**

$$\begin{pmatrix} a & b & c & d & e & f \\ a & b & c & d & e & f \end{pmatrix} * \begin{pmatrix} a & b & c & d & e & f \\ b & c & d & e & f & a \end{pmatrix} = \begin{pmatrix} a & b & c & d & e & f \\ b & c & d & e & f & a \end{pmatrix}$$

$$\begin{pmatrix} a & b & c & d & e & f \\ a & b & c & d & e & f \end{pmatrix} * \begin{pmatrix} a & b & c & d & e & f \\ f & a & b & c & d & e \end{pmatrix} = \begin{pmatrix} a & b & c & d & e & f \\ f & a & b & c & d & e \end{pmatrix}$$