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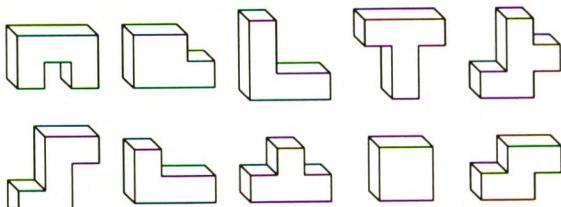
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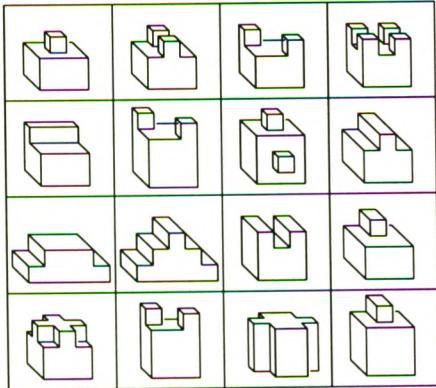
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and other problem shapes as well.

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Exchange Letter Pieces in the columns

A	A	A	D	H	A	A	E	E	C	A	A	E
H	E	K	E	R	C	N	G	L	F	E	F	L
S	L	L	L	S	E	O	R	N	G	I	I	R
Y	O	N	Y	Y	O	T	U	T	Y	O	S	T

to find the English words in the rows.

Form words in the rows of the SCRAMBLE-20 puzzles by exchanging Letter Pieces in their columns. Advance through four-, five-, six-, seven- and eight-letter word SCRAMBLE-20 puzzles, with from 3 to 6 words in each Letter Rectangle. The SCRAMBLE-20 Puzzle Booklet contains over two hundred such puzzles. Additional SCRAMBLE-20 Puzzle Booklets are also available. SCRAMBLE-20 comes with 80 plastic letter pieces in four colors. Price: \$20.

The solutions to the three SCRAMBLE-20 Letter Rectangles depicted above are shown here.

ALLY	HOTEL	CAFE
HAND	RANGE	FOIL
SEAL	SCOUT	GIST
YOKE	YEARN	YEAR

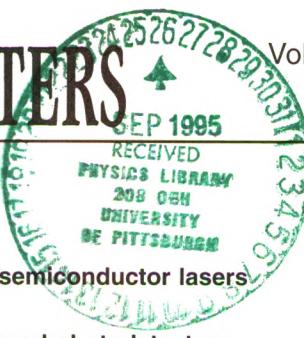
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F	A	A	A	D
G	I	E	D	E
L	L	I	E	H
R	O	N	N	M
T	R	U	T	N

A	A	B	A	E	D
B	H	C	D	I	E
C	O	D	E	N	N
D	S	E	G	R	R
S	U	M	R	U	Y

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- 1862 Near-field optical beam induced current measurements on heterostructures
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- 1865 Growth of germanium-carbon alloys on silicon substrates by molecular beam epitaxy
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- 1888 Photoluminescence and microstructure of self-ordered grown SiGe/Si quantum wires
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- 1891 Eu-doped CaF_2 grown on Si(100) substrates by molecular beam epitaxy
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- 1896 Reduction of recombination current in CdTe/CdS solar cells
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- 1899 The electronic structure and energy level alignment of porphyrin/metal interfaces studied by ultraviolet photoelectron spectroscopy
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- 1902 Temperature dependence of the etch rate and selectivity of silicon nitride over silicon dioxide in remote plasma NF_3/Cl_2
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- 1917 **Extended function of a high- T_c transition edge bolometer on a micromachined Si membrane**
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- 1920 **Deposition of high quality $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ films on ultrathin ($12 \mu\text{m}$ thick) sapphire substrates for infrared detector applications**
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- 1929 **Correlation of critical current and resistance fluctuations in bicrystal grain boundary Josephson junctions**
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- 1932 **Determination of pinning strength of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ from magnetic stiffness measurements**
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- 1935 **Disorder and synchronization in a Josephson junction plaquette**
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- 1938 **History dependent domain structures in giant-magnetoresistive multilayers**
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- 1941 **Ferroelectric phase transition temperatures of KTiOPO_4 crystals grown from self-fluxes**
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- 1944 **Comment on ‘Phase transformation of cobalt induced by ball milling’ [Appl. Phys. Lett. 66, 308 (1995)]**
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- 1945 **Response to ‘Comment on ‘Phase transformation of cobalt induced by ball milling’’ [Appl. Phys. Lett. 67, 1944 (1995)]**
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