The package TooYoung

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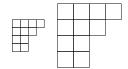
2

Abstract

The short package TooYoung (no more than 150 lines) provides an easy way to draw Young tableaux. This passage is to present all the functions of this package.

One can also input Young diagrams by its type through \yng and \Yng.

 $\gamma(4,3,2,2)$



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Options 2

- The size of boxes and the thickness of lines are customizable.
- $\mathbf{2}$ \Youngwidth 1pc \Youngheight 1pc $\mathbf{2}$
 - 0.2pt \Youngvline \Younghline 0.2pt

Exercise 2 Type this Young tabloid.

The font in the box can be easily changed by redefine \Fontinbox.

\$\def\Fontinbox#1{\sf#1} $\Upsilon \{a\&b\c)$



Exercise 3 Type this periodic table.

Н							Не
Li	В	Ве	С	Ν	О	F	Ne
Na	Mg	Al	Si	Р	S	Cl	Ar
K	Ca						

\$\Young{\\\displaystyle

\young and \fyoung may be helpful.



Exercise 4 How to adjust this ugly tableaux?

\frac{1}{2}\\}\$

The commend \Young and \FYoung is protected in the environment array, so it adds satisfactory space and adjusts to suitable depth. Sometimes, use more original

1 Boxes

One can make Young tableaux by \Young as following.

\$\Young{1&2&3&4\\5&6&7\\8&9}\$

1	2	3	4
5	6	7	
8	9		

One can convert it into French convention by using \FYoung.

\$\FYoung{1&2&3&4\\5&6&7\\8&9}\$

8	9		
5	6	7	
1	2	3	4

If one suddenly wants to convert all young diagrams in his article, use \Frenchstyletrue globally.

One can make spaces by using square brackets as following.

\$\Young{[]&2&3&4\\5&6&[7]\\8&9}\$ 5 6 7

Exercise 1 Type this RobinsonC-Schensted-CKnuth Al*qorithm*

1	2	2	3	\leftarrow	2
2	3	5	5		
4	4	6		•	
5	6				

Exercise 5 Type the following 1415 puzzle.

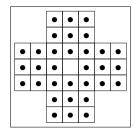
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	

1	2	3	4
5	6	7	8
9	10	11	12
13	14		15

					7
1	L	2	3	4	
ŀ	5	6	7	8	
()	10		12	
1	3	14	11	15	
_					_

1	2	3	4
5	6	7	8
9	10	12	
13	14	11	15

Exercise 6 Type the following peg solitaire.



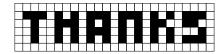
3 Effects

The package provides two effects \hole and \shadow.

 $\gamma[]&\rho(\)\$



Exercise 7 Thanks for reading and type this



It also provides \hook to draw hooks.

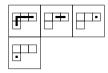
 $\gamma {\cline{C}}$



The thickness is parameterized by

Youngvhook 1.6pt Younghhook 1.6pt

Exercise 8 Type this hook length formula.



4 Answers

Exercise 1

\$\$\Young{1&2&2&3&[\leftarrow]&2\\2&3&5&5\\4&4&6\\5&6}\$\$

Exercise 2

 $\$ \setlength\Youngvline{0pt}\Young{1&2&3&4\\5&6&7\\8&9}\$\$

Exercise 3

\$\$\setlength\Youngwidth{1.5pc}\setlength\Youngheight{1.5pc}
\setlength\Younghline{2pt}\setlength\YoungVline{2pt}
\Young{H&[]&[]&[]&[]&[]&[]&He\\
Li&B&Be&C&N&O&F&Ne\\Na&Mg&Al&Si&P&S&Cl&Ar\\
K&Ca}\$\$

Exercise 5

\$\$\fbox{\young{1&2&3&4\\5&6&7&8\\9&10&11&12\\13&14&15}}\quad\fbox{\young{1&2&3&4\\5&6&7&8\\9&10&11&12\\13&14&[]&5\\quad\fbox{\young{1&2&3&4\\5&6&7&8\\9&10&[]&12\\13&14&11&5\\quad\fbox{\young{1&2&3&4\\5&6&7&8\\9&10&12&[]\\13&14&11&5\\quad\fbox{\young{1&2&3&4\\5&6&7&8\\9&10&12&[]\\13&14&11&5\}\$\$

Exercise 6

\$\$\fbox{\young{[]&[}& \bullet&\bullet&\bullet\\
[]&[]& \bullet&\b

Exercise 7

\$\$\setlength\Youngwidth{0.5pc}\setlength\Youngheight{0.5pc} &\hole&\hole&&\hole&&\hole&&\hole&&\hole&&\hole&&\hole&&\hole&&\hole&&&\hole&&&\hole&&&\hole&&&\hole&&&\hole&&&\hole&&&\hole&&&\hole&&&&\hole&&&\hole&&&&\hole&&&&hole

Exercise 8

 $$\\left(\\right)_{2pc}\left(\\right)_{$

5 Comments

In the package, I used a lot of "dirty technique" in coding. If you know some references providing the TEX way which is not dirty, please inform me.

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