Infix to Postfix

CS110C
Max Luttrell, CCSF

converting infix to postfix

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2. if you encounter a "(", push it onto the stack
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a-(b+c*d)/e

stack

postfixExp

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a**b**

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ab**c**

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    2. else, peek at the stack. if it is an operator of greater or equal precedence, pop it from the stack and append it to `postfixExp`. keep peeking/popping until you encounter either a "(" or an operator of lower precedence, or the stack becomes empty. then, push the operator onto the stack
4. if you encounter a ")", pop operators off the stack and append them to `postfixExp` until you encounter the "(". pop off the "("
5. **if you encounter the end of the string, pop off remaining stack operators and append them to `postfixExp`**

a-(b+c*d)/e

-

stack

abcd*+e/

postfixExp

converting infix to postfix

1. if you encounter an operand, append it to the output string `postfixExp`
2. if you encounter a "(", push it onto the stack
3. if you encounter an operator:
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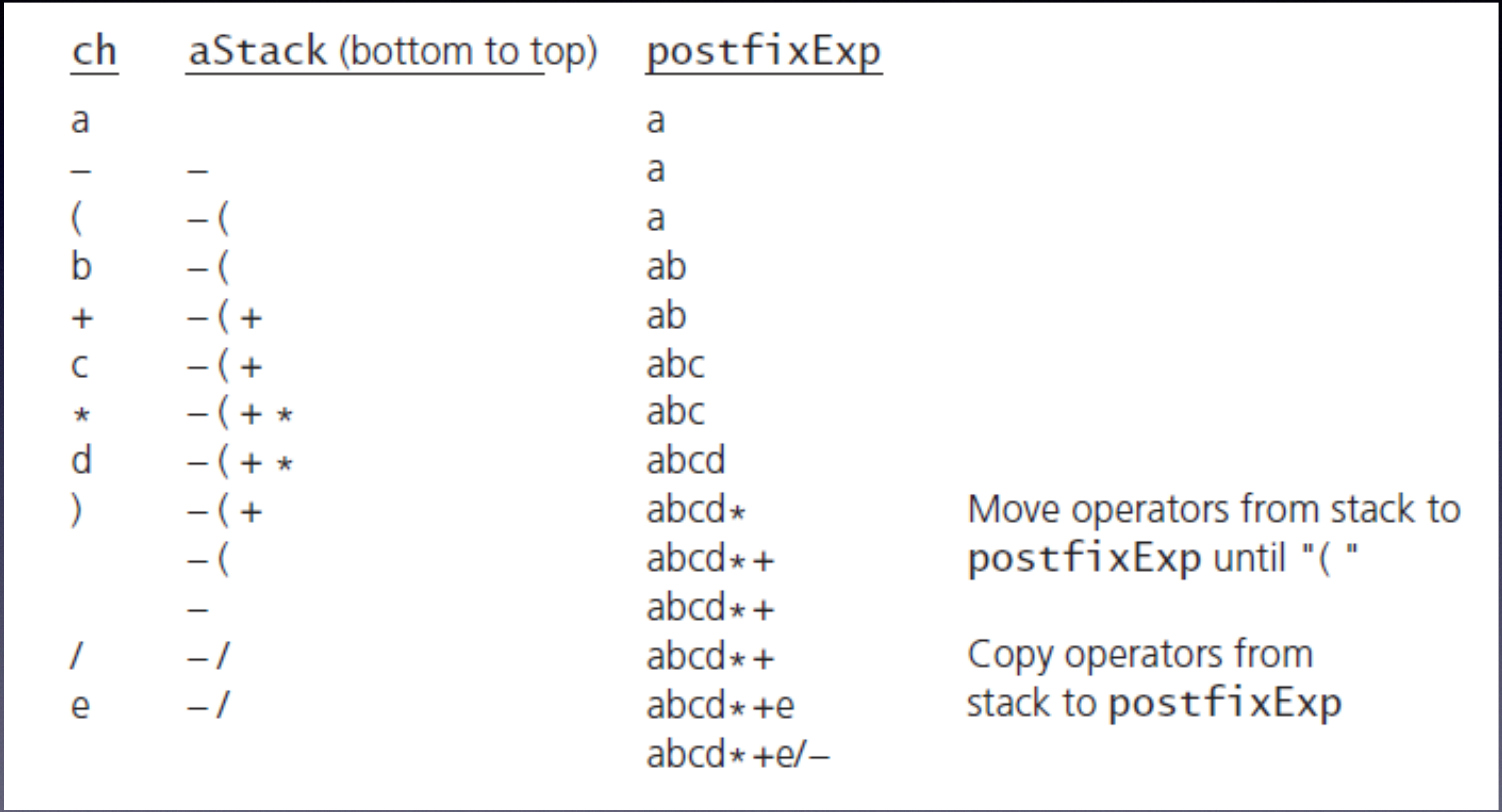
a-(b+c*d)/e

stack

abcd*+e/-
postfixExp

example: a-(b+c*d)/e



ch	aStack (bottom to top)	postfixExp	
a		a	
–	–	a	
(	–(	a	
b	–(	ab	
+	–(+	ab	
c	–(+	abc	
*	–(+*	abc	
d	–(+*	abcd	
)	–(+	abcd*	Move operators from stack to
	–(	abcd*+	postfixExp until "("
	–	abcd*+	
/	–/	abcd*+	Copy operators from
e	–/	abcd*+e	stack to postfixExp
		abcd*+e/–	