งานมอบหมายชิ้นที่ 6

แสดงวิธีการแปลง infix เป็น postfix โดยใช้ stack

1. a+b-c*d/e-f+g*h

a	[ ]	a
+	[+]	a
b	[+]	ab
-	[-]	ab
c	[-]	abc
*	[*-]	abc
d	[*-]	abcd
/	[/-]	abcd
e	[/-]	abcde
-	[-]	abcde/*-+
f	[-]	abcde/*-+f
+	[+]	abcde/*-+f
g	[+]	abcde/*-+fg
*	[*+]	abcde/*-+fg
h	[*+]	abcde/*-+fgh
	[ ]	abcde/*-+fgh*+-

2. a*b-c*d+e-f+g*h

a	[ ]	a
*	[*]	a
b	[*]	ab
-	[-]	ab
c	[-]	abc
*	[*-]	abc
d	[*-]	abcd
+	[+-]	abcd
e	[+-]	abcde
-	[-]	abcde+*-*
f	[-]	abcde+*-*f
+	[+]	abcde+*-*f
g	[+]	abcde+*-*fg
*	[*+]	abcde+*-*fg
h	[*+]	abcde+*-*fgh
	[ ]	abcde+*-*fgh*+-

3. a+b*c*d/(e*f)*g+h

a	[ ]	a
+	[+]	a
b	[+]	ab
*	[*+]	ab
c	[*+]	abc
*	[**+]	abc
d	[**+]	abcd
/	[/*+]	abcd
(	[(+]	abcd/**+
e	[(+]	abcd/**+e
*	[*(+]	abcd/**+e
f	[*(+]	abcd/**+ef
)	[*+]	abcd/**+ef
*	[*+]	abcd/**+ef*
g	[*+]	abcd/**+ef*g
+	[+]	abcd/**+ef*g
h	[+]	abcd/**+ef*gh
	[ ]	abcd/**+ef*gh+*

4. a+b-(c*d)-e-f+g-h

a	[ ]	a
+	[+]	a
b	[+]	ab
-	[-]	ab
(	[(-]	ab-+
c	[(-]	ab-+c
*	[(*-]	ab-+c
d	[(*-]	ab-+cd
)	[-]	ab-+cd*
-	[-]	ab-+cd*e
e	[-]	ab-+cd*e
-	[-]	ab-+cd*ef
f	[-]	ab-+cd*ef
+	[+]	ab-+cd*ef
g	[+]	ab-+cd*efg
-	[-]	ab-+cd*efg
h	[-]	ab-+cd*efgh
	[ ]	ab-+cd*efgh-+-

5. a+(b+c)*d/e+f/g*h

a		a
+		a
(		a+
b		a+b
+		a+b
c		a+bc
)		a+bc
*		a+bc+
d		a+bc+d
/		a+bc+d
e		a+bc+de
+		a+bc+de
f		a+bc+def
/		a+bc+def
g		a+bc+defg
*		a+bc+defg
h		a+bc+defgh
		a+bc+defgh*/+/*

6. a/b*c*d*(e-f)+g^h

a		a
/		a
b		ab
*		ab
c		abc
*		abc
d		abcd
*		abcd
(		abcd***/
e		abcd***/e
-		abcd***/e
f		abcd***/ef
)		abcd***/ef
+		abcd***/ef-
g		abcd***/ef-g
^		abcd***/ef-g
h		abcd***/ef-gh
		abcd***/ef-gh^+

7. (a^b)/c*d/e-f+g+h

(		
a		a
^		a
b		ab
)		ab
/		ab^
c		ab^c
*		ab^c
d		ab^cd
/		ab^cd
e		ab^cde
-		ab^cde/*/
f		ab^cde/*/f
+		ab^cde/*/f
g		ab^cde/*/fg
+		ab^cde/*/fg
h		ab^cde/*/fgh
		ab^cde/*/fgh++-

8. a*b^c*((d-e)-f)*g-h

a		a
*		a
b		ab
^		ab
c		abc
*		abc
(		abc*^*
(		abc*^*
d		abc*^*d
-		abc*^*d
e		abc*^*de
)		abc*^*de
-		abc*^*de-
f		abc*^*de-f
)		abc*^*de-f
*		abc*^*de-f-
g		abc*^*de-f-g
-		abc*^*de-f-g
h		abc*^*de-f-gh
		abc*^*de-f-gh-*

9. a+b-c^((d-e)-f)*(g-h)

a	⌴	a
+	+	a
b	+	ab
-	-	ab
c	-	abc
^	^	abc
(	(	abc^=
(	(	abc^=+
d	(	abc^-+d
-	-	abc^-+d
e	-	abc^-+de
)	)	abc^-+de
-	-	abc^-+de-
f	-	abc^-+de-f
)	)	abc^-+de-f
*	*	abc^-+de-f-
(	(	abc^-+de-f-*
g	(	abc^-+de-f-*g
-	-	abc^-+de-f-*g
h	-	abc^-+de-f-*gh
)	)	abc^-+de-f-*gh
	⌴	abc^-+de-f-*gh-

10. a/(b+c)*(d+(e+f))^g+h

a	⌴	a
/	/	a
(	(	a
b	(	ab
+	(	ab
c	(	abc
)	)	abc+/
*	*	abc
(	(	abc*+/
d	(	abc*+/d
+	+	abc*+/d
(	+	abc*+/d
e	+	abc*+/de
+	+	abc*+/de
f	+	abc*+/def
)	)	abc*+/def
)	)	abc*+/def
^	^	abc*+/def++
g	^	abc*+/def++g
+	+	abc*+/def++g
h	+	abc*+/def++gh
	⌴	abc*+/def++gh^+