

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*g
	[]	abcd/**+ef*g

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	-	ab-+cd*e
-	-	ab-+cd*e
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	<input type="checkbox"/>	a
+	<input type="checkbox"/>	a+
(<input type="checkbox"/>	a+
b	<input type="checkbox"/>	a+b
+	<input type="checkbox"/>	a+b
c	<input type="checkbox"/>	a+bc
)	<input type="checkbox"/>	a+bc
*	<input type="checkbox"/>	a+bc+
d	<input type="checkbox"/>	a+bc+d
/	<input type="checkbox"/>	a+bc+d
e	<input type="checkbox"/>	a+bc+de
+	<input type="checkbox"/>	a+bc+de
f	<input type="checkbox"/>	a+bc+def
/	<input type="checkbox"/>	a+bc+def
g	<input type="checkbox"/>	a+bc+defg
*	<input type="checkbox"/>	a+bc+defg
h	<input type="checkbox"/>	a+bc+defgh
	<input type="checkbox"/>	a+bc+defgh*+/*

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

a	<input type="checkbox"/>	a
/	<input type="checkbox"/>	a
b	<input type="checkbox"/>	ab
*	<input type="checkbox"/>	ab
c	<input type="checkbox"/>	abc
*	<input type="checkbox"/>	abc
d	<input type="checkbox"/>	abcd
*	<input type="checkbox"/>	abcd
(<input type="checkbox"/>	abcd*** /
e	<input type="checkbox"/>	abcd*** / e
-	<input type="checkbox"/>	abcd*** / e
f	<input type="checkbox"/>	abcd*** / ef
)	<input type="checkbox"/>	abcd*** / ef
+	<input type="checkbox"/>	abcd*** / ef -
g	<input type="checkbox"/>	abcd*** / ef - g
^	<input type="checkbox"/>	abcd*** / ef - g
h	<input type="checkbox"/>	abcd*** / ef - gh
	<input type="checkbox"/>	abcd*** / ef - gh ^ +

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

(<input type="checkbox"/>	
a	<input type="checkbox"/>	a
^	<input type="checkbox"/>	a
b	<input type="checkbox"/>	ab
)	<input type="checkbox"/>	ab
/	<input type="checkbox"/>	ab^
c	<input type="checkbox"/>	ab^c
*	<input type="checkbox"/>	ab^c
d	<input type="checkbox"/>	ab^cd
/	<input type="checkbox"/>	ab^cd
e	<input type="checkbox"/>	ab^cde
-	<input type="checkbox"/>	ab^cde / *
f	<input type="checkbox"/>	ab^cde / * / f
+	<input type="checkbox"/>	ab^cde / * / f
g	<input type="checkbox"/>	ab^cde / * / fg
+	<input type="checkbox"/>	ab^cde / * / fg
h	<input type="checkbox"/>	ab^cde / * / fgh
	<input type="checkbox"/>	ab^cde / * / fgh + + -

$$8. a * b \wedge c * ((d - e) - f) * g - h$$

a	<input type="checkbox"/>	a
*	<input type="checkbox"/>	a
b	<input type="checkbox"/>	ab
^	<input type="checkbox"/>	ab
c	<input type="checkbox"/>	abc
*	<input type="checkbox"/>	abc
(<input type="checkbox"/>	abc**^
(<input type="checkbox"/>	abc**^
d	<input type="checkbox"/>	abc**^d
-	<input type="checkbox"/>	abc**^d
e	<input type="checkbox"/>	abc**^de
)	<input type="checkbox"/>	abc**^de
-	<input type="checkbox"/>	abc**^de -
f	<input type="checkbox"/>	abc**^de - f
)	<input type="checkbox"/>	abc**^de - f
*	<input type="checkbox"/>	abc**^de - f -
g	<input type="checkbox"/>	abc**^de - f - g
-	<input type="checkbox"/>	abc**^de - f - g
h	<input type="checkbox"/>	abc**^de - f - gh
	<input type="checkbox"/>	abc**^de - f - gh * -

9. $a + b - c \wedge ((d - e) - f) * (g - h)$ 10. $a / (b + c) * (d + (e + f)) \wedge g + h$

a	$\boxed{}$	a
+	$\boxed{+}$	a
b	$\boxed{+}$	ab
-	$\boxed{-}$	ab
c	$\boxed{+}$	abc
^	$\boxed{\wedge}$	abc
(	$\boxed{(}$	abc^+=+
(	$\boxed{(}$	abc^+=+
d	$\boxed{(}$	abc^+=+d
-	$\boxed{-}$	abc^+=+d
e	$\boxed{-}$	abc^+=+de
)	$\boxed{)}^2$	abc^+=+de
-	$\boxed{-}$	abc^+=+de-
f	$\boxed{-}$	abc^+=+de-f
)	$\boxed{)}^2$	abc^+=+de-f
*	$\boxed{*}$	abc^+=+de-f
(	$\boxed{(}$	abc^+=+de-f*
g	$\boxed{(}$	abc^+=+de-f*g
-	$\boxed{-}$	abc^+=+de-f*g
h	$\boxed{-}$	abc^+=+de-f*g
)	$\boxed{)}^2$	abc^+=+de-f*g
	$\boxed{)}$	abc^+=+de-f*g

a	$\boxed{}$	a
/	$\boxed{/}$	a
(	$\boxed{(}$	a
b	$\boxed{(}$	ab
+	$\boxed{+}$	ab
c	$\boxed{+}$	abc
)	$\boxed{)}^2$	abc+/-
*	$\boxed{*}$	abc
(	$\boxed{(}$	abc*+/-
d	$\boxed{(}$	abc*+/-d
+	$\boxed{+}$	abc*+/-d
(	$\boxed{(}$	abc*+/-d
e	$\boxed{(}$	abc*+/-de
+	$\boxed{+}$	abc*+/-de
f	$\boxed{+}$	abc*+/-def
)	$\boxed{)}^2$	abc*+/-def
)	$\boxed{)}^2$	abc*+/-def
^	$\boxed{\wedge}$	abc*+/-def++
g	$\boxed{\wedge}$	abc*+/-def++g
+	$\boxed{+}$	abc*+/-def++g
h	$\boxed{+}$	abc*+/-def++gh
	$\boxed{)}$	abc*+/-def++gh+