

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	$\boxed{}$	a
+	$\boxed{+}$	a +
($\boxed{(}$	a + b
b	\boxed{b}	a + b
+	$\boxed{+}$	a + bc
c	\boxed{c}	a + bc
)	$\boxed{)}$	a + bc +
*	$\boxed{*}$	a + bc + d
d	\boxed{d}	a + bc + d
/	$\boxed{/}$	a + bc + de
e	\boxed{e}	a + bc + de
+	$\boxed{+}$	a + bc + def
f	\boxed{f}	a + bc + def
/	$\boxed{/}$	a + bc + defg
g	\boxed{g}	a + bc + defg
*	$\boxed{*}$	a + bc + defgh
h	\boxed{h}	a + bc + defgh * / + / *

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

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

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

($\boxed{(}$	
a	\boxed{a}	a
^	$\boxed{\wedge}$	a
b	\boxed{b}	ab
)	$\boxed{)}$	ab
/	$\boxed{/}$	ab ^
c	\boxed{c}	ab ^ c
*	$\boxed{*}$	ab ^ c
d	\boxed{d}	ab ^ cd
/	$\boxed{/}$	ab ^ cd
e	\boxed{e}	ab ^ cde
-	$\boxed{-}$	ab ^ cde / *
f	\boxed{f}	ab ^ cde / * / f
+	$\boxed{+}$	ab ^ cde / * / f
g	\boxed{g}	ab ^ cde / * / fg
+	$\boxed{+}$	ab ^ cde / * / fg
h	\boxed{h}	ab ^ cde / * / fgh
	$\boxed{}$	ab ^ cde / * / fgh ++ -

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

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

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