

วิชาคอมพิวเตอร์ชั้นที่ 6

การแปลงนิพจน์ 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 $\boxed{+}$ a

+ $\boxed{+}$ a

b $\boxed{+}$ ab

* $\boxed{+}$ ab

c $\boxed{+}$ abc

* $\boxed{+}$ abc

d $\boxed{+}$ abcd

/ $\boxed{+}$ abcd

($\boxed{+}$ abcd/**+

e $\boxed{+}$ abcd/**+e

* $\boxed{+}$ abcd/**+e

f $\boxed{+}$ abcd/**+ef

) $\boxed{+}$ abcd/**+ef

* $\boxed{+}$ abcd/**+ef*

g $\boxed{+}$ abcd/**+ef*g

+ $\boxed{+}$ abcd/**+ef*g

h $\boxed{+}$ abcd/**+ef*gh

$\boxed{+}$ abcd/**+ef*gh**

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

a $\boxed{+}$ a

+ $\boxed{+}$ a

b $\boxed{+}$ ab

- $\boxed{+}$ ab

($\boxed{+}$ ab - +

c $\boxed{+}$ ab - + c

* $\boxed{+}$ ab - + c

d $\boxed{+}$ ab - + cd

) $\boxed{+}$ ab - + cd

- $\boxed{+}$ ab - + cd *

e $\boxed{+}$ ab - + cd * e

- $\boxed{+}$ ab - + cd * e

f $\boxed{+}$ ab - + cd * ef

+ $\boxed{+}$ ab - + cd * ef

g $\boxed{+}$ ab - + cd * ef g

- $\boxed{+}$ ab - + cd * ef g

h $\boxed{+}$ ab - + cd * ef g h

$\boxed{+}$ ab - + cd * ef g h - + - -

5. $a + (b + c) * d / e + f / g * h$			6. $a / b * c * d * (e - f) + g \wedge h$		
a	<input type="checkbox"/>	a	a	<input type="checkbox"/>	a
+	<input checked="" type="checkbox"/>	a	/	<input checked="" type="checkbox"/>	a
(<input checked="" type="checkbox"/>	a +	b	<input checked="" type="checkbox"/>	ab
b	<input checked="" type="checkbox"/>	a + b	*	<input checked="" type="checkbox"/>	ab
+	<input checked="" type="checkbox"/>	a + b	c	<input checked="" type="checkbox"/>	abc
c	<input checked="" type="checkbox"/>	a + bc	*	<input checked="" type="checkbox"/>	abc
)	<input checked="" type="checkbox"/>	a + bc	d	<input checked="" type="checkbox"/>	abcd
*	<input checked="" type="checkbox"/>	a + bc +	*	<input checked="" type="checkbox"/>	abcd
d	<input checked="" type="checkbox"/>	a + bc + d	(<input checked="" type="checkbox"/>	abcd*** /
/	<input checked="" type="checkbox"/>	a + bc + d	e	<input checked="" type="checkbox"/>	abcd*** / e
e	<input checked="" type="checkbox"/>	a + bc + de	-	<input checked="" type="checkbox"/>	abcd*** / e
+	<input checked="" type="checkbox"/>	a + bc + de	f	<input checked="" type="checkbox"/>	abcd*** / ef
f	<input checked="" type="checkbox"/>	a + bc + def)	<input checked="" type="checkbox"/>	abcd*** / ef -
/	<input checked="" type="checkbox"/>	a + bc + def	+	<input checked="" type="checkbox"/>	abcd*** / ef -
g	<input checked="" type="checkbox"/>	a + bc + defg	g	<input checked="" type="checkbox"/>	abcd*** / ef - g
*	<input checked="" type="checkbox"/>	a + bc + defg	^	<input checked="" type="checkbox"/>	abcd*** / ef - g
h	<input checked="" type="checkbox"/>	a + bc + defgh	h	<input checked="" type="checkbox"/>	abcd*** / ef - gh
	<input type="checkbox"/>	a + bc + defgh * / + *		<input type="checkbox"/>	abcd*** / ef - gh ^ +

7. $(a^b)/c*d/e-f+g+h$	8. $a*b^c*((d-e)-f)^*g-h$
(<input type="checkbox"/>)	a <input type="checkbox"/> a
a <input type="checkbox"/> a	* <input type="checkbox"/> a
^ <input type="checkbox"/> a	b <input type="checkbox"/> ab
b <input type="checkbox"/> ab	^ <input type="checkbox"/> ab
<input type="checkbox"/> ab	c <input type="checkbox"/> abc
/ <input type="checkbox"/> ab^	* <input type="checkbox"/> abc
c <input type="checkbox"/> ab^c	(<input type="checkbox"/> abc*^*
* <input type="checkbox"/> ab^c	(<input type="checkbox"/> abc*^*
d <input type="checkbox"/> ab^cd	d <input type="checkbox"/> abc*^*d
/ <input type="checkbox"/> ab^cd	- <input type="checkbox"/> abc*^*d
e <input type="checkbox"/> ab^cde	e <input type="checkbox"/> abc*^*de
- <input type="checkbox"/> ab^cde/*/) <input type="checkbox"/> abc*^*de
f <input type="checkbox"/> ab^cde/*/f	- <input type="checkbox"/> abc*^*de-
+ <input type="checkbox"/> ab^cde/*/f	f <input type="checkbox"/> abc*^*de-f
g <input type="checkbox"/> ab^cde/*/fg	<input type="checkbox"/> abc*^*de-f
+ <input type="checkbox"/> ab^cde/*/fg	* <input type="checkbox"/> abc*^*de-f-
h <input type="checkbox"/> ab^cde/*/fgh	g <input type="checkbox"/> abc*^*de-f-g
<input type="checkbox"/> ab^cde/*/fgh+-	- <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	<input type="checkbox"/>	a	a	<input type="checkbox"/>	a
+	<input type="checkbox"/>	a	/	<input type="checkbox"/>	a
b	<input type="checkbox"/>	ab	(<input type="checkbox"/>	a
-	<input type="checkbox"/>	ab	b	<input type="checkbox"/>	ab
c	<input type="checkbox"/>	abc	+	<input type="checkbox"/>	ab
^	<input type="checkbox"/>	abc	c	<input type="checkbox"/>	abc
(<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*+/
-	<input type="checkbox"/>	abc^-+d	d	<input type="checkbox"/>	abc*+/d
e	<input type="checkbox"/>	abc^-+de	+	<input type="checkbox"/>	abc*+/d
)	<input type="checkbox"/>	abc^-+de	(<input type="checkbox"/>	abc*+/d
-	<input type="checkbox"/>	abc^-+de-	e	<input type="checkbox"/>	abc*+/de
f	<input type="checkbox"/>	abc^-+de-f	+	<input type="checkbox"/>	abc*+/de
)	<input type="checkbox"/>	abc^-+de-f	f	<input type="checkbox"/>	abc*+/def
*	<input type="checkbox"/>	abc^-+de-f-)	<input type="checkbox"/>	abc*+/def
(<input type="checkbox"/>	abc^-+de-f-)	<input type="checkbox"/>	abc*+/def
g	<input type="checkbox"/>	abc^-+de-f-*g	^	<input type="checkbox"/>	abc*+/def++
-	<input type="checkbox"/>	abc^-+de-f-*g	g	<input type="checkbox"/>	abc*+/def++g
h	<input type="checkbox"/>	abc^-+de-f-*gh	+	<input type="checkbox"/>	abc*+/def++g
)	<input type="checkbox"/>	abc^-+de-f-*gh	h	<input type="checkbox"/>	abc*+/def++gh
<input type="checkbox"/>		abc^-+de-f-*gh-	<input type="checkbox"/>		abc*+/def++gh+^