Manually converting infix to postfix:

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

Next Character from Infix Expression	Postfix Form	Operator Stack (bottom to top)
a	a	
*	a	*
b	ab	*
/	ab*	/
(	ab*	/(
c	ab*c	/(
-	ab*c	/(-
a	ab*ca	/(-
)	ab*ca-	/
+	ab*ca-/	+
d	ab*ca-/d	+
*	ab*ca-/d	+*
e	ab*ca-/de	+*
	ab*ca-/de*	+
	ab*ca-/de*+	

Postfix form: ab*ca-/de*+

Manually evaluating postfix:

a=2, b=3, c=4, d=5, e=6

2 3 * 3 2 - / 5 6 * +

2	← a
2 3	← b
2 3	*
2 3	→ *
2	* 3
2	→ *3
	2 * 3
6	← 2*3
6 4	← c
6 4 2	← a
6 4 2	-
6 4 2	→ -
6 4	-2
6 4	→ - 2
6	4 – 2
6 2	← 4 – 2
6 2	/
6 2	→ /
6	/ 2
6	→ /2
	6/2
3	← 6/2
3 5	← d
3 5 6	← e
3 5 6	*
3 5 6	→ *
3 5	*6
3 5	→ * 6
3	5 * 6
3 30	← 5 * 6
3 30	+
3 30	→ +
3	+ 30
3	→ + 30
	3 + 30
33	← 3 + 30