Josh and Russell
Professor Dong
CS 2400
March 8, 2021

Task 1

Original equation: $a* b / (c-a)+d*e$

Step 1: $a * b/(ca -) + d * e$

- First of all, we are just going to move the operators within parentheses which is just $c - a$ which turns into $ca -$

Step 2: $(ab *)/(ca -) + (de *)$

- Then, Group all multiplication and division operators together

Step 3: $ab * ca - /de *+$

- Lastly, we can move the division sign because the stack would do $ca -$ first before the division.Then we can also move the plus sign to after the $de *$ because it operates last.

TABLE ON SECOND PAGE

Original equation: $a * b / (c - a) + d * e$

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

Postfix: $ab * ca - /de * +$