1. Digital Electronics The circuit translates: $(\overline{A B})(A B + \overline{C}) = AB + (\overline{A B} \ C)$ To be true one or both of the terms must be true. This occurs for (*, *, 1) and (1, 1, 0)	1. (0,0,1), (0,1,1), (1,0,1) (1,1,1) and (1,1,0)
2. Prefix/Postfix The postfix expression translates to infix as: $\qquad$ A + B / (C * (D + E - A)) + F - E and substituting $\qquad$ 7 + 9 /(3 * (4 + 6 - 7)) + 8 - 6 = $\qquad$ 7 + 1 + 8 - 6 = 10	2. 10
3. Prefix/Postfix The prefix expression translates to infix as: $\qquad$ (X + 4) * (6 - X) and setting this equal to 0 $\qquad$ gives integer solutions of -4 and 6	3. -4 and 6
4. Data Structures When Grumpy is compared to Dopey, go right. When compared to Sleepy, go left. When compared to Happy go left and insert at node. Eight nodes can be attached. They have a path length of 25 = 5(3)+ 2 + 2(4)	4. 25
5. Data Structures The following is the result of the operations on the stack: B, BI, BIN, BI, BID, BI, BIS, and BI. The next item to be popped is I.	5. I