Shunting Yard Algorithm

To transform a math expression to Reverse Polish Notation (RPN)

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|---|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1+sin(a+b*3)*2 1 a b 3 * + sin 2 * + | | | | | | | | | | | | | |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 12 | 13 |
| 1 | + | sin | (| a | + | b | * | 3 |) | * | 2 | 1 | 1 |
| + | sin | (| a | + | b | * | 3 |) | * | 2 | 1 | a a | 1 a |
| sin | | a | + | b | * | 3 | | * | 2 | 1 | a | b | b |
| (| a | + | b | * | 3 |) | * | 2 | 1 | a | b | 3 | 3 |
| a | + | b | * | 3 |) | * | 2 | 1 | a | b | 3 | * | * |
| + | b | * | 3 | | * | 2 | 1 | a | b | 3 | * | + | + |
| b | * | 3 | | * | 2 | 1 | a | b | 3 | * | + | sin | sin |
| * | 3 |) | * | 2 | 1 | a | b | | | + | sin | 2 | 2 |
| 3 |) | * | 2 | 1 | a | | | + | + | sin | | | * |
| | * | 2 | 1 | | | + | + | sin | sin | | + | + | + |
| * | 2 | 1 | | + | + | sin | sin | | | + | * | * | |
| 2 | 1 | | + | sin | sin | | | + | + | | | | |