Loren Loreano C. Raceles

II-BSCS-A

**Convert the following expressions into their infix form. Show the stack.**

1/2-5\*7^3\*(8+11)/4+2

|  |  |  |  |
| --- | --- | --- | --- |
| **Incoming**  **Symbol** | **Stack** | **Output** | **Remarks** |
| 1 |  | 1 | Output 1 |
| / | / | 1 | Push / |
| 2 | / | 12 | Output 2 |
| - | - | 12/ | icp(-) < isp(/), pop / .push |
| 5 | - | 12/5 | Output 5 |
| \* | -\* | 12/5 | icp(\*) > isp(-), push \* |
| 7 | -\* | 12/7 | Output 7 |
| ^ | -\*^ | 12/573 | icp(^) > isp(\*).push^ |
| 3 | -\*^ | 12/573\*\* | Output 3 |
| \* | -\* | 12/573\*\* | icp(\*) < isp(^), pop ^, icp(\*) > isp(\*).pop\*, isp(\*) > isp(-),push \* |
| ( | -\*( | 12/573\*\*8 | Push ( |
| 8 | -\*( | 12/573\*\*8 | Output \* |
| + | -\*(+ | 12/573\*\*811 | icp(+) > isp(().push + |
| 11 | -\*(+ | 12/573\*\*811+ | Output 11 |
| ) | -\* | 12/573\*\*811+\* | Pop +, pop ( |
| / | -/ | 12/573\*\*811+\*4 | icp(/) < isp(\*), pop \*, icp(/) > isp(-), push / |
| 4 | -/ | 12/573\*\*811+\*4/ | Output 4 |
| + | + | 12/573\*\*811+\*4/- | icp(+) < isp(/).pop /, icp(+) < isp(-),pop -, push + |
| 2 | + | 12/573\*\*811+\*4/-2 | Output 2 |
|  |  | 12/573\*\*811+\*4/-2+ | Pop + |