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Task 1: Transforming an Infix Expression to a Postfix Expression  $a*b/(c\hbox{-}a)+d*e$ 

| Next character in infix expressio | Postfix form | Operator Stack (bottom to top) |
|-----------------------------------|--------------|--------------------------------|
| a                                 | a            |                                |
| *                                 | a            | *                              |
| b                                 | ab           | *                              |
| /                                 | ab*          |                                |
|                                   | ab*          | /                              |
| (                                 | ab*          | /(                             |
| С                                 | ab*c         | /(                             |
| -                                 | ab*c         | /(-                            |
| a                                 | ab*ca        | /(-                            |
| )                                 | 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*+  |                                |