
Scrum Blasters

Big Ol' Calculator

Test Case

Version <1.0>

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| Big Ol' Calculator | Version: <1.0> |
| Test Case | Date: <06/12/24> |
| <document identifier> | |

Revision History

| Date | Version | Description | Author |
|------------|---------|--------------------------------|----------------|
| <06/12/24> | <1.0> | Putting the test case together | Scrum Blasters |
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Test Case

1. Purpose

The purpose of the test case document is to outline any possible bugs that could arise and aspire to catch them before releasing the current implementation. Below is a table for several different cases that the team has tested for in ensuring a quality product. Test case identifiers will be defined and then their related test item, input specification, and expected output will follow in later sections.

NOTE: for sections 2, 3, 4, and 5: It is OK to use a table like the one proposed in class, also suggested on the project part 5 description.

2. Test case identifier

Test cases will be identified with the prefix TC## and then given a brief description below about what the test is looking for.

3. Test item

TC01 — Addition
TC02 — Subtraction
TC03 — Multiplication
TC04 — Division
TC05 — Exponents
TC06 — Multiplication/Division Priority
TC07 — Parenthetical Priority
TC08 — Exponential Priority
TC09 — Mixed Operator Evaluation
TC10 — Extraneous Parenthesis Reaction
TC11 — Parenthetical/Exponential Priority
TC12 — Open Parenthesis
TC13 — Unmatched Closed Parenthesis
TC14 — Invalid Tokens
TC15 — Missing Operands
TC16 — Dividing by Zero
TC17 — Modular Operation
TC18 — Full PEMDAS Prioritization
TC19 — PEMDAS Priority with Extraneous Parenthesis
TC20 — Missing Operators/Extraneous Operands
TC21 — Unary Operators
TC22 — Unary Operators and Parenthesis
TC23 — Number Paired with Characters
TC24 — Invalid Mixed Unary
TC25 — Negative/Negative Mixed Unary

4. Input specifications

TC01 — $6 + 2$
TC02 — $6 - 2$
TC03 — $6 * 2$
TC04 — $6 / 2$

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TC05 — $6 ** 2$
 TC06 — $6 + 2 * 3$
 TC07 — $(6 + 2) * 3$
 TC08 — $(6 + 2) + 8 / 2 ** 3$
 TC09 — $(6 + 2 - 3) * 4 / 2$
 TC10 — $(6+2)()$
 TC11 — $(5+3**2)**2$
 TC12 — $(12 + 3$
 TC13a — $2 * 3)$
 TC13b — $(4 * 5))$
 TC14 — $5 + w$
 TC15 — $53 +$
 TC16 — $5 / 0$
 TC17 — $5 \% 2$
 TC18 — $((6 + 2) ** (2 * 2) - 4 / 2) \% 13$
 TC19 — $((((6 + 2) ** (((2 * 2)))) - 4 / 2) \% 13))$
 TC20 — $6 2$
 TC21 — $-6 + 2$
 TC22 — $-(6+2))$
 TC23 — $w3$
 TC24 — $+ -6$
 TC25 — $-(-6)$

5. Output specifications

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|----------------------------------|------------------------|----------------|
| TC01 — Expected Result: 8 | Actual Result: 8 | Status: Pass |
| TC02 — Expected Result: 4 | Actual Result: 4 | Status: Pass |
| TC03 — Expected Result: 12 | Actual Result: 12 | Status: Pass |
| TC04 — Expected Result: 3 | Actual Result: 3 | Status: Pass |
| TC05 — Expected Result: 36 | Actual Result: 36 | Status: Pass |
| TC06 — Expected Result: 12 | Actual Result: 12 | Status: Pass |
| TC07 — Expected Result: 24 | Actual Result: Invalid | Status: Failed |
| TC08 — Expected Result: 9 | Actual Result: 9 | Status: Pass |
| TC09 — Expected Result: 10 | Actual Result: 10 | Status: Pass |
| TC10 — Expected Result: Invalid | Actual Result: 8 | Status: Failed |
| TC11 — Expected Result: 196 | Actual Result: 196 | Status: Pass |
| TC12 — Expected Result: Invalid | Actual Result: Invalid | Status: Pass |
| TC13a — Expected Result: Invalid | Actual Result: Invalid | Status: Pass |
| TC13b — Expected Result: Invalid | Actual Result: Invalid | Status: Pass |
| TC14 — Expected Result: Invalid | Actual Result: Invalid | Status: Pass |
| TC15 — Expected Result: Invalid | Actual Result: Invalid | Status: Pass |
| TC16 — Expected Result: Invalid | Actual Result: Invalid | Status: Pass |
| TC17 — Expected Result: 1 | Actual Result: Invalid | Status: Pass |
| TC18 — Expected Result: 12 | Actual Result: 12 | Status: Pass |
| TC19 — Expected Result: 12 | Actual Result: 12 | Status: Pass |
| TC20 — Expected Result: Invalid | Actual Result: 6 | Status: Failed |
| TC21 — Expected Result: -4 | Actual Result: -4 | Status: Failed |
| TC22 — Expected Result: -8 | Actual Result: -8 | Status: Pass |
| TC23 — Expected Result: Invalid | Actual Result: 3 | Status: Failed |
| TC24 — Expected Result: Invalid | Actual Result: Invalid | Status: Pass |
| TC25 — Expected Result: 6 | Actual Result: Pass | Status: Pass |