User Story # 1

User Story	As a mathematician, I want to calculate the value of the silver ratio number up to given certain decimal places, so that I can see what the number is up to certain decimal places.
Id	US1
Acceptance criteria # 1	• Given that I need to calculate the value of silver ratio number having 10 digits after the decimal point, • When I perform an operation by providing 10 as a number of digits I want after the decimal point, • I should see 2.4142135623 as an answer.
Priority	HIGH
Constraints # 1	**Performability:** • A calculator user can calculate the value of the silver ratio number having a maximum of 20 digits after the decimal point.

User Story # 2

User Story	As a mathematician, I want to calculate an area of a regular octagon with given side length, so that I can see what the area is for a given side length.
Id	US2
Acceptance criteria # 1	• Given that I need to calculate an area of a regular octagon with a side length of 8, • When I perform an operation by providing 8 as a side length of an octagon, • Then I should see 309.02 as an answer.
Priority	HIGH
Constraints	NIL

User Story # 3

User Story	As a mathematician, I want to store a calculated value of the silver ratio number in memory, so that I can use it later.
Id	US3
Acceptance criteria # 1	• Given that I have already calculated the value of the silver ratio number having 10 digits after the decimal point, • When I press "M in" key, • Then the number of 2.4142135623 should be stored in memory, • And the status bar on the display should show "M" , • And the calculator should allow me to do the next operation.
Priority	MEDIUM
Constraints	

User Story # 4

User Story	As a mathematician, I want to add certain number to the value of the silver ratio number, so that I can see what their total is.
Id	US4
Acceptance criteria # 1	• Given that I have two numbers 5 and the silver ratio number, • When I perform addition on them, • Then I should see the sum as 7.4142135623.
Priority	MEDIUM
Constraints # 1	• The addition expression should use the number 2.4142135623 as a value of the silver ratio number, which has **exactly 10 digits after the decimal point.**

User Story # 5

User Story	As a mathematician, I want to subtract a certain number from the value of the silver ratio number, so that I can see what the difference between them is.
Id	US5
Acceptance criteria # 1	• Given that I have two numbers 2 and the silver ratio number, • When I subtract 2 from the silver ratio number, • Then I should see the difference as 0.4142135623.
Acceptance criteria # 2	• Given that I have two numbers 10 and the silver ratio number, • When I subtract 2 from the silver ratio number, • Then I should see the difference as -7.5857864377 which is a negative number.
Priority	MEDIUM
Constraints # 1	• The subtraction expression should use the number 2.4142135623 as a value of the silver ratio number, which has **exactly 10 digits after the decimal point.**

User Story # 6

User Story	As a mathematician, I want to multiply a certain number with the value of the silver ratio number, so that I can see what their product is.
Id	US6
Acceptance criteria # 1	• Given that I have two numbers 5 and the silver ratio number, • When I multiply 5 with the silver ratio number, • Then I should see the product as 12.0710678115.
Acceptance criteria # 2	• Given that I have two numbers 0 and the silver ratio number, • When I multiply 0 with the silver ratio number, • Then I should see the product as 0.
Acceptance criteria # 3	• Given that I have two numbers 1 and the silver ratio number, • When I multiply 1 with the silver ratio number, • Then I should see the product as 2.4142135623 which is the same as the silver ratio number.
Priority	MEDIUM
Constraints # 1	• The multiplication expression should use the number 2.4142135623 as a value of the silver ratio number, which has **exactly 10 digits after the decimal point.**

User Story # 7

User Story	As a mathematician, I want to divide a certain number by the value of the silver ratio number, so that I can see what the quotient is.
Id	US7
Acceptance criteria # 1	• Given that I have two numbers 10 and the silver ratio number, • When I divide 10 by the silver ratio number, • Then I should see the quotient as 4.14213562386.
Acceptance criteria # 2	• Given that I have two numbers 0 and the silver ratio number, • When I divide 0 by the silver ratio number, • Then I should see the quotient as 0.
Priority	MEDIUM
Constraints # 1	• The division expression should use the number 2.4142135623 as a value of the silver ratio number, which has **exactly 10 digits after the decimal point.**

User Story # 8

User Story	As a mathematician, I want to divide the value of the silver ratio number by a certain number, so that I can see what the quotient is.
Id	US8
Acceptance criteria # 1	• Given that I have two numbers the silver ratio number and 100. • When I divide the silver ratio number by 100, • Then I should see the quotient as 0.02414213562.
Acceptance criteria # 2	• Given that I have two numbers the silver ratio number and 0. • When I divide the silver ratio number by 0, • Then I should see the quotient as “infinity” .
Priority	MEDIUM
Constraints # 1	• The division expression should use the number 2.4142135623 as a value of the silver ratio number, which has **exactly 10 digits after the decimal point.**