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## ○ BJP4 Self-Check 8.5: CalculatorObject

**Language/Type:** Java [classes](#) [Objects](#) [state](#)

**Author:** Marty Stepp (on 2016/09/08)

Imagine that you are creating a class called Calculator. A Calculator object could be used to program a simple mathematical calculator device like the ones you have used in math classes in school.

What state and behavior might a Calculator object have?

Sound F/X

- a. ☐ The state would be the set of numbers on the calculator, from 0 to 9. The behavior is all of the buttons the calculator would have on it, like a + button, a \* button, and a 7 button.
- b. ☐ The state of a Calculator object includes its name, who owns it, its age, its size, weight in pounds, dimensions (length, width, height), the model number and company that manufactures it. The behavior includes things you can do with the Calculator, such as lift it up, put it down, turn it on and off, put batteries in it, and sell it on eBay.
- c. ☐ The state is the number of calculators the user has used, and the behavior is to create a new calculator and use it to solve a math problem. Each calculator can be used only once.
- d. ☐ The state might be the list of every number that the user has ever computed on the calculator. The behavior is a set of commands for examining and manipulating that list, such as scrolling back through it and removing elements.
- e. ☒ The state might include the number that has just been computed and a memory feature. The behavior might include methods to add, subtract, multiply, divide, and perhaps advanced math operations such as exponentiation, logarithms, and trigonometric functions.

(order shuffled)



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**question #1:** What state and behavior might a Calculator object have?

**your answer:**

The state might include the number that has just been computed and a memory feature. The b

**result:**  pass

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