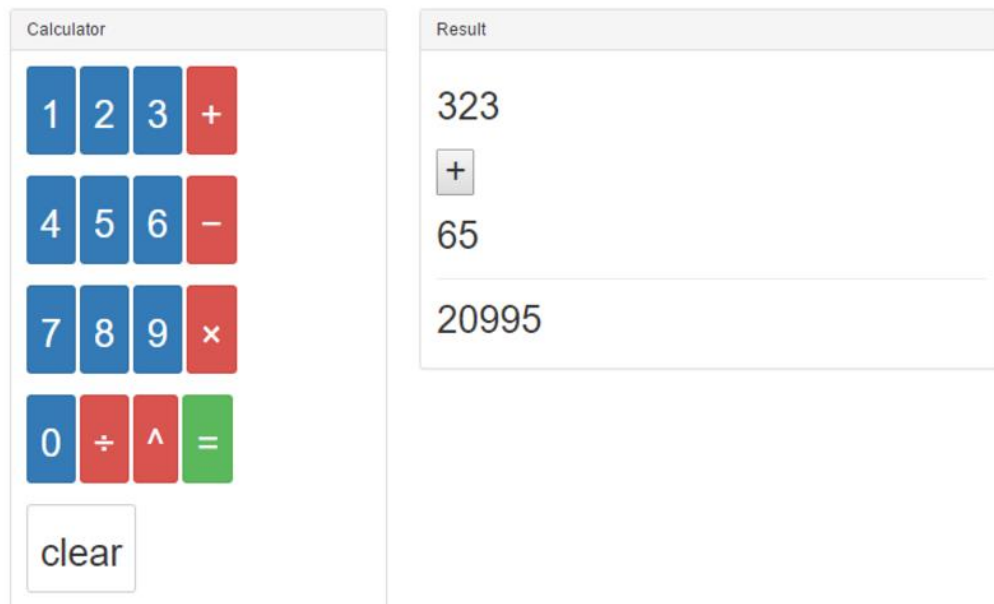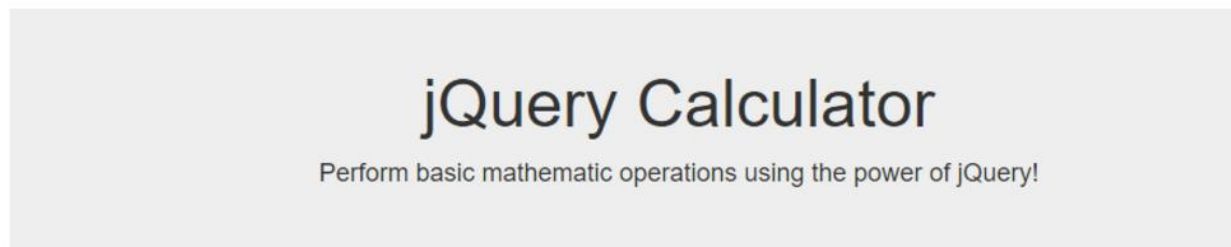# jQuery Calculator Instructions

9. Instructor Do: Intro Calculator + Group Formation (0:05)

- **File:**
  - `jQueryCalculator_Starter.html`
- **Instructions:**
  - Create the JavaScript logic necessary to add functionality to the jQuery Calculator.
  - Your calculator should be able to handle basic mathematical operations like addition, subtraction, multiplication, etc.
  - You should be making use of the existing buttons.
  - You should be making use of the existing placeholders for entering content (i.e. "firstNumber", "operator", "secondNumber", "result").
  - You should have fun and push yourselves! This is a challenge activity—which means, if you get it done, you are a King of jQuery. If you don't, no sweat. The important thing is that you learned at least a FEW things along the way.

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Everyone Do: Phase 1: Getting Situated + Pseudocoding Stage (0:20)

- **Phase I Objectives**

  - For this first 20 minutes, your goals should be to:
    - Become familiar with the various elements of the HTML page as it is written now. (Identify the classes and IDs that matter!)
    - Create a general strategy for how you will accomplish the task:
      - How will you capture button clicks?
      - What will you do with the numbers clicked?
      - What will you do when the operator is clicked?
      - How will you differentiate numbers from operators?
      - How will you know the "value" of a number clicked?
      - How will you know when a user is done entering the first number?
      - Etc.
    - Create a few test "on-click" events. These could just trigger Alert messages for now. If you get further along, then have these buttons alert their "value".

11. Everyone Do: Phase 2: Begin Logic (0:25)

- **Phase II Objectives**
  - For the next 30 minutes, your goals should be to:
    - Begin creating sets of variables that you think you will need. As a few suggestions:
      - firstNumber, secondNumber, operator, result
    - Create code that captures the numbers from button clicks, and then displays them on the HTML.
    - Create code that captures an operator click, then immediately tells your code to begin recording the second number. (Example: If a user hits the "plus" button, you know they are done typing the first number).
    - Create code that checks which operator the user has clicked, then saves this operator for later use in a conditional statement. (Example: If a user hits the "plus" button, you know you will need to be adding two numbers. If a user hits the "minus" button, you will need to be subtracting two numbers. Think: If-Then statements!)

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Continue Logic Building (0:25)

- **Phase III Objectives**

  - For the next 25 minutes, your goals should be to:

    - Complete the functionality you are missing in your code.

    - Spend a few moments really assessing what you still have to do.

    - Get a TA/Instructor to help you set priorities if you are unsure as to how to proceed.

Everyone Do: Refinement (0:15)

- Slack out the below objectives:

- **Phase IV Objectives**

  - For the last 15 minutes, your goals should be to:

    - Complete any remaining functionality in your calculator

    - Handle bugs and edge cases (Example: What if a user tries to type in more numbers after getting the result? Will that mess up the screen?)

    - Create code to "restart" the calculator after a user hits "clear".

15. Instructor Do: Review Calculator (0:05)