

TEACHER PROMPTS:

- **PROVIDE** :: code snippets or comments you definitely want to provide
- **STUDENT-PROMPT** :: a specifically-worded question you want to ask, or a general solicitation for input, etc
- **MUST-ANSWER-Q** :: a question that must be resolved, that a majority of your class must understand before moving on
- **BIG-IDEA** :: an introduction of a new topic, a connection to prior lesson or discussion for application here in code, etc.
- **BEEG-REVEAL** :: this is gonna blow yer minds...
- **DELIBERATE-ERROR** :: specific code snippet or a general approach that is a bad fit for the situation, is flat-out wrong, or will lead to a compile- or run-time error, etc.
- **FIRSTDRAFT** :: code that will work for now, but which you intend to replace later
- **REVISION vX** :: better versions of firstdraft code...

CODE: This method should search through `data` and return the index of the first time `value` appears in `data`. If `value` is not in `data` return -1.

{ 3, 9, 12, 18 }

```
public int linearSearch(int value, ArrayList<Integer> data) {  
    int foundIndex = -1;  
    for (int i=0; i < data.size(); i++) {  
        int element = data.get(i);  
        if (element == value) {  
            foundIndex = i;  
            break;  
        }  
    }  
    return foundIndex;  
}
```

What values is linear search taking in?

Big reveal: -1 isn't an index. -1 is the output if nothing is found.

How is this code traversing through our list?

We can say the element returned and students have to correct it. We can mistype the return value.

Big Idea: We are using for and if loops to traverse an array in order.

Portfolio assignment Big Reveal: The index is different than the value in the index.

Students are to create two detailed lesson plans, outlines and supporting materials for computer science. The lesson plans and outlines should include a description of the intended student audience and a detailed explanation of how multiple pedagogical techniques can be used in delivering the lesson.