

Boolean and if FRQ 1**Unit 3 Free Response Question 1**

1. Assume that the following variables have been properly declared and initialized.

a `boolean` variable named `rsvp`

an `int` variable named `selection`, where:

1 represents "beef",

2 represents "chicken",

3 represents "pasta", and

all other values represent "fish"

a `String` variable named `option1`

a `String` variable named `option2`

- (a) In the box below, write a code segment that prints "attending" if `rsvp` is true and prints "not attending" otherwise.

```
if(rsvp) {
    System.out.println("attending");
} else {
    System.out.println("not attending");
}

// Total: 1
// +1 [Skill 3.C] Prints appropriate value based on rsvp
// -1 (w) Extraneous code that causes side-effect
//    (e.g., printing to output, incorrect precondition check)
```

- (b) In the box below, write a code segment that prints the food item associated with `selection`. For example, if `selection` is 3, the code segment should print "pasta". Your code segment should meet all specifications and conform to the example.

```
if(selection == 1) {
    System.out.println("beef");
} else if (selection == 2) {
    System.out.println("chicken");
} else if (selection == 3) {
    System.out.println("pasta");
} else {
    System.out.println("fish");
}

// Total: 1
// +1 [Skill 3.C] Prints appropriate value based on selection
// -1 (w) Extraneous code that causes side-effect
//    (e.g., printing to output, incorrect precondition check)
```

Question 1 continued on the next page...

Boolean and if FRQ 1

- (c) In the box below, write a code segment that will store a dinner selection in `option1` based on the values of `rsvp` and `selection`. The intended behavior of the code segment is described below.

If `rsvp` is `true`, the code segment should store in `option1` a string indicating the person's attendance and food choice. For example, if `rsvp` is `true` and `selection` is 1, the following string should be stored in `option1`.

"Thanks for attending. You will be served beef."

If `rsvp` is `false`, the following string should be stored in `option1`, regardless of the value of `selection`.

"Sorry you can't make it."

Your code segment should meet all specifications and conform to the examples.

```
if(rsvp) {
    option1 = "Thanks for attending, you will be served ";
    if( selection == 1 ) {
        option1 += "beef.";
    } else if(selection == 2 ) {
        option1 += "chicken.";
    } else if(selection == 3 ) {
        option1 += "pasta.";
    } else {
        option1 += "fish.";
    }
} else {
    option1 = "Sorry you can't make it.";
}

// Total: 1
// +1 Stores the appropriate String in option1
// -1 (w) Extraneous code that causes side-effect
//     (e.g., printing to output, incorrect precondition check)
```

- (d) In the box below, write a code segment that will print `true` if the strings `option1` and `option2` contain the same values and will print `false` otherwise.

```
if( option1.equals(option2) ) {
    System.out.println(true);
} else {
    System.out.println(false);
}

// more concise: System.out.println( option1.equals(option2) );
//
// Total: 1
// +1 Prints the appropriate value based on option1 and option2
// -1 (w) Extraneous code that causes side-effect
//     (e.g., printing to output, incorrect precondition check)
```