CSC 209 Review 4 Solution

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1. The answer is `a)` `*p` and `g)` `*&i`.

   <u>Notes</u>

   - **Address and Indirection Pointers**
     - If `x` is a variable, `&x` points to its memory address
     - * in `*p` is called **Indirection operator**
       - ∗ Allows variable to gain access to the object pointed by `p`
   - **Aliases**
     - Is the situation where the value in same memory location can be accessed using different variable names.

       <u>Example 1:</u>

       ```
       int i, p*;
       p = & i;
       printf("%d\n", *p); /* *p is an alias of i */
       ```

       <u>Example 2:</u>

       ```
       int i, p*;
       p = *&i /* *p is an alias of i */
       ```

2. <u>Notes</u>

   - **Pointer Assignment**
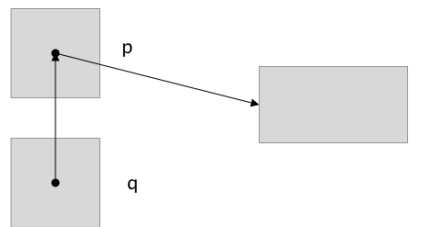   - The following is an example of correct pointer assignment

       ```
       int i, j, *p. *q;
       p = &i;
       ```

        ∗ Means the memory address of `p` is pointing to memory address of `i`

– The following is another valid example of pointer assignment

```
int i, j, *p. *q;
p = &i;
q = p;
```

        ∗ Means memory address of `q` is the memory address of `p` (which is the memory address of `i`)

        ∗