Popquiz! 12 simple pieces   Name (pledged):   Points:

1. Write function documentation for the following function, which gets input from the keyboard, puts it into a one-dimensional array of length m, and prints each value.

```
//
//
//
//
void input(int [], int);
```

2. Write a function sum that takes an integer array foo of length n sums up its elements, and returns the sum of the elements.

3. Write a function print that prints an array bar of length k using a for loop.

4. Write a statement that prints a long integer variable i, a floating-point variable x to precision 4, and a Boolean variable b.

5. Declare a floating-point constant PI with the value 3.141592.

6. Comment each line of this code:

```
#include <stdio.h>

int main(void)

{

int time;

printf("Enter time in seconds:\n");

scanf("%d",&time);

float answer = (32 * time * time) / 2;

printf("\nThe distance is %g feet.\n", answer);

return 0;
}
```

7. Write a nested `for` loop to iterate over a 2 x 2 integer array `baz`. Inside the `for` loop, print an array element.

8. Change the following function so that the parameter `signal` can be passed by reference from the calling function: `morse(&signal)`

```
void morse ( char     signal  )
{
        printf("Your morse signal was '%c'\n",      signal   );
}
```

9. Write a statement that prints `i`, `p` and `**p` below, and write after the `//` comments what `i`, `p`, and `pp` each are.

```
int i = 100;
int * p = &i;
int** pp = &p;
// print i, p, **pp
```

10. For given integers `a` and `b`, complete the selection statement below:

```
if (        ) {
 printf("%d and %d are the same!\n",a,b);
} else if (       ) {
 printf("%d is bigger than %d!\n",a,b);
}
```

11. Write a `while` loop that prints your name 10 times before exiting:

12. You've tangled a source code file as `main.c`. Write the code necessary to compile it on the command-line so that the executable is called `a.out`

What if you didn't do well on this popquiz? There are several possibilities:

1. You don't do well under pressure. To remove this obstacle, do the quiz all over (without peeking at the solutions): tinyurl.com/functions-popquiz.
2. You just don't have the basics to solve most of the questions. Then you must work through the solutions and make sure you understand it, and work through the first 15 chapters of w3schools.com for C (free and online).
3. You (think you) know the basics, and you understood the review of the quiz, but you're just too darn slow. Then you need to solve more small problems, starting with the bonus problems in the course, and you can always ask me for more small problems.