

Assignment 2 - Functions and Arrays

Question 1

A user-written function called `square` returns a value that is the square of its arguments. The function is written as follows:

```
int square ( int x )
{
    ...
}
```

where the `...` represents one or more missing statement(s). Give the complete function.

```
char s[3] ;
s[0]='H' ;
s[0]='i' ;
s[0]=0 ;
len(s) ;
```

Question 2

A user-written function called `sums` takes two arguments: an array of integer values, `x`, and an integer, `n`, that is the number of elements in the array. The function is to return the sum of the squares of the values in the array. The function is declared as follows:

```
int sums ( int x[], int n )
{
    ...
}
```

As in the previous question, figure out the missing portion and write the complete function. Your function must make use of the `sq` function defined above. Note that the syntax `x[]` is used to declare that a function argument is an array.

Question 3

Write a function with the name `len` that takes an array of characters as an argument and returns an integer value which is the number of characters in the array. The last character in the array has a value zero. This character should not be included in the count. For example, given the following sequence of statements, the value of the last expression would be 2: