Under the hood


b[0] b[1] b[2]

........
void mod5(int y[])
{
    int lcv;
    for (lcv = 0; lcv < ARRAYSIZE; lcv++)
    {
        y[lcv] = lcv % 5;
    }
}
void reverse(int y[])
{
    int i;
    int halfN = N / 2;
    int temp;
    for (i = 0; i < halfN; i++)
    {
        // swap y[i] and y[N - 1 - i]
        temp = y[i];
        y[i] = y[N - 1 - i];
        y[N - 1 - i] = temp;
    }
}
Quiz Question #1

```c
void mod5(_______)
{
    int lcv;
    for (lcv = 0; lcv < ARRAYSIZE; lcv++)
    {
        y[lcv] = lcv % 5;
    }
}
```

Fill in the blank.

A. int y
B. int y[] 1 pt
C. int y[lcv]
D. int *y[]
E. int *y[lcv]
Quiz Question #2
void reverse(int y[])
{
    int i;
    int halfN = N / 2;  // half of N or N - 1
    int yi;
    for (i = 0; i < halfN; i++)
    {
        yi = y[i];
        y[i] = y[_____ - i];
        y[_____ - i] = yi;
    }
}

Fill in the blanks.
A. both halfN - 1
B. both halfN
C. both N - 1  1 pt
D. both N
Quiz Question #3
Suppose that part way through a selection sort we have

\[
\begin{array}{ccccccc}
1 & 2 & | & 5 & 7 & 3 & 4 & 6 & 8 \\
\end{array}
\]

where | separates the sorted from the unsorted list. What is the result after the next pass?

A. 1 2 3 | 5 7 4 6 8
B. 1 2 3 | 7 5 4 6 8  
C. 1 2 5 | 7 3 4 6 8  
D. 1 2 | 5 3 7 4 6 8  
E. 1 2 | 5 6 3 4 7 8

1 pt
Quiz Question #4
How many passes are needed to sort a list of 3 elements? 4 elements? \( n \) elements?

A. \( n-1 \) passes 1 pt 39%
B. \( n \) passes
C. \( n+1 \) passes
D. \( n/2 \) passes 58%
E. \( (n-1)/2 \) passes
where the remainder is discarded in D and E.