

## DS B Quiz 1 - Solution

### Question 1

#### Given Code

```
double* realPtr;  
long* integerPtr;  
integerPtr = realPtr;
```

#### Error

- Type mismatch: assigning a `double*` to a `long*`

#### Correction

```
double* realPtr;  
double* integerPtr;  
integerPtr = realPtr;
```

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### Question 2

#### Given Code

```
int* x, y;  
x = y;
```

#### Error

- `x` is a pointer, while `y` is an integer
- Cannot assign an `int` value to an `int*`

#### Correction

```
int *x, *y;  
x = y;
```

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### Question 3

#### Given Code

```
double x = 19.34;  
double xPtr = &x;  
cout << xPtr << endl;
```

#### Error

- Cannot assign an address value to a double (\* is missing).

### Correction

```
double x = 19.34;  
double* xPtr = &x;  
cout << *xPtr << endl;
```

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## Question 4

### Given Code

```
char s[] = "this is a character array";  
for(; *s != '\0'; ++s)  
    cout << *s << ' ';
```

### Error

- Array name cannot be incremented

### Correction

```
char s[] = "this is a character array";  
for(char* p = s; *p != '\0'; ++p)  
    cout << *p << ' ';
```

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## Question 5

### Given Code

```
int* number;  
cout << *number << endl;
```

### Error

- An uninitialized pointer is dereferenced

### Correction

```
int n = 10;  
int* number = &n;  
cout << *number << endl;
```