

REVIEW

PASSING

// Simple variable.

```
int main(void) {
    int i;
    i = 55;
    FOO(i);          // By value
    BAR(&i);          // By reference
}
```

// Simple pointer variable.

```
int main(void) {
    int *j;
    j = (int*)calloc(1, sizeof(int));
    *j = 100;
    FOO(*j);          // By value
    BAR(&(*j));        // By reference
    BAR(j);           // By reference
}
```

RECEIVING

// By value.

```
void FOO(int I) {
    I = 42;
    printf("FOO: %d\n", I);
}
```

// By reference.

```
void BAR(int *I) {
    *I = 42;
    printf("BAR: %d\n", *I);
}
```

Note the receiving end is usually the same regardless if a pointer or simple variable is being passed to the function.

PASSING

// Pointer by reference.

```
int main(void) {
    int *k;
    k = (int*)calloc(1, sizeof(int));
    *k = 999;
    FOOBAR(&k);        // Address by reference
}
```

RECEIVING

// Pointer by reference.

```
void FOOBAR(int *(*I)) {
    *I = (int*)calloc(1, sizeof(int));
    *(*I) = 42;
    printf("FOOBAR: %d\n", *(*I));
}
```