

# Problems 191205

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## void pointer

- Guess the printed results.

```
int main() {
    unsigned int uiwdata = 0x80;
    printf("%X\n", uiwdata);
    unsigned char* bdatap = (unsigned char*)&uiwdata;
    for (int n = 0; n < 4; n++) {
        printf("%X\n", *(bdatap + n));
    }

    printf("%X\n", *(unsigned int*)bdatap);
    return 0;
}
```

## Array - pointer relationship

- Guess the printed results.

```
int main() {
    int arr[][3] = { {-1,-2,-3}, {1,2,3} };
    printf("%d\n", arr); // This gives 52.
    printf("%d\n", arr+1);
    printf("%d\n", *(arr + 1));
    printf("%d\n", ***(arr + 1));
    printf("%d\n", (*(arr + 1)+2));
    printf("%d\n", arr[1] + 2);
    return 0;
}
```

## Function

- Guess the printed results.

```
int fcn(int* p) {
    if (*p < 0) {
        return 0;
    }
    else if ((*p)++ > 0) {
        return 1;
    }
    else {
```

```
        return 2;
    }
}

int main() {
    int x = 0;
    int* p = &x;
    if (fcn(p) == 1) {
        printf("true.\n");
    }
    else if (fcn(p) == 1) {
        printf("false.\n");
    }
    else {
        printf("none.\n");
    }
    printf("%d\n", x);
    return 0;
}
```