

[1*] 1. The following is illegal. Why? How would you correct it?

```
int main()
{
    int i, j;
    int *ip;
    i = j = ip = 0;
    return 0;
}
```

[1*] 2. Write a program to down from 10 to -5?

[1*] 3. What does the following code do?

```
int i = 0;
while (i < 10) {
    i += 1;
    std::cout << i << '\n';
}
```

[1*] 4. Write a program to generate the product of the numbers in the range of [1, 10).

[3*] 5. What does the following example do?

```
void send(int* to, int* from, int count)
    // Duff 's device. Helpful comment deliberately deleted.
{
    int n = (count+7)/8;
    switch (count%8) {
        case 0: do { *to++ = *from++;
        case 7: *to++ = *from++;
        case 6: *to++ = *from++;
        case 5: *to++ = *from++;
        case 4: *to++ = *from++;
        case 3: *to++ = *from++;
        case 2: *to++ = *from++;
        case 1: *to++ = *from++;
                } while (--n>0);
    }
}
```

Why would anyone write something like that? No, this is not recommended as good style.