Problem FC-2 (2 parts)  

**Part A:** Draw the control flow graph corresponding to the following C fragment, including the flow within the compound predicate.

```c
for (I = 100; I > 0; I--) {
    if ((X[I] < NumX) && ((Y[I] < NumY) || (Z[I] != 0)))
        Z[I] = 5*I;
    else
        Y[I] = 3*I;
}
I = X[0] + Y[0];
```

**Part B:** Express the switch statement below as a flat compound predicate if-then-else statement that uses only logical operators (==, !=, ||). Do not use logical AND (&&).

```c
switch (N) {
    case 0: x = x + y;
        break;
    case 10: y = x - y;
        break;
    case 20: x = x + y;
        break;
    default: y = x - y;
}
```