Assume that all the variables used in the following segment are of type int.

```c
switch(k) {
    case 0: f = i+j; break;
    case 1: f = g+h; break;
    case 2: f = g-h; break;
    case 3: f = i-j; break;
}
```

Let us assume that the variables f, g, h, i, j and k are in registers $15$, $16$, $17$, $18$, $19$ and $20$ respectively. We will use $4$ for scratch work.

MAL Segment

```mips
try0: move $4, $0 #Move 0 into $4.
bne $20, $4, try1 #if k != 0, jump to try1.
add $15, $18, $19 #f = i+j
j exit #Break out of switch.

try1: addi $4, $4, 1 #$4 now contains 1.
bne $20, $4, try2 #if k != 1, jump to try2.
add $15, $16, $17 #f = g+h
j exit #Break out of switch.

try2: addi $4, $4, 1 #$4 now contains 2.
bne $20, $4, try3 #if k != 2, jump to try3.
sub $15, $16, $17 #f = g-h
j exit #Break out of switch.

try3: addi $4, $4, 1 #$4 now contains 3.
bne $20, $4, exit #if k != 3, jump to exit.
sub $15, $18, $19 #f = i-j
exit:
```