## Digital System Design with High-Level Synthesis in FPGA

Multiplexer Leading One: Quiz Solution

www.highlevel-synthesis.com

The following code contains the missing numbers.

```
ap_int<2> encoder4x2(ap_uint<4> a) {
    ap_int<2> code;

if (a[3] == 1) {
    code = 3;
} else if (a[2] == 1) {
    code = 2;
} else if (a[1] == 1) {
    code = 1;
} else {
    code = 0;
}

return code;
}
```