```
         // temp=0x21
→    9   if (temp<33  && temp>28) {
    10       printf("Perfect temperature to go outside!\n");
    11   } else {
    12       printf("Prolly should have stayed indoors..\n");
    13   }
```

33 degrees – 0x21

33 degrees is the temperature entered during scanf("%d", &temp)

Look at how $rbp-4 is a dword or 4 bytes in size

```
HEX   21

DEC   33
```

```
gef►  x/wx $rbp-4
0x7fffffffe41c: 0x00000021
gef►  |
```

```
gef►  x/4gx $rbp-16
0x7fffffffe410: 0x00007fffffffe500     0x0000002100000000
0x7fffffffe420: 0x0000000000400610     0x00007ffff7a05b97
gef►  |
```

32 degrees – 0x20

32 degrees is the upper bound

If 0x21 is greater than 0x20, jump is taken

```
HEX   20

DEC   32
```

```
→   0x4005d8 <main+49>      mov    eax, DWORD PTR [rbp-0x4]
    0x4005db <main+52>      cmp    eax, 0x20
    0x4005de <main+55>      jg     0x4005f6 <main+79>
```

```
gef►  i r $eax
eax            0x21       0x21
```
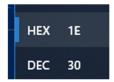
```
   0x4005db <main+52>        cmp     eax, 0x20
→  0x4005de <main+55>        jg      0x4005f6 <main+79>        TAKEN [Reason: !Z && S==O]
⤷    0x4005f6 <main+79>        lea     rdi, [rip+0xf3]           # 0x4006f0
```

32 degrees is the upper bound, 32 degrees is 0x20

30 degrees is lesser than 32 degrees so jump is not taken

```
HEX   1E

DEC   30
```

```
   0x4005d8 <main+49>        mov     eax, DWORD PTR [rbp-0x4]
→  0x4005db <main+52>        cmp     eax, 0x20
   0x4005de <main+55>        jg      0x4005f6 <main+79>
```

```
gef➤  i r $eax
eax             0x1e      0x1e
```
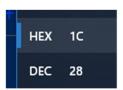
```
   0x4005d8 <main+49>        mov     eax, DWORD PTR [rbp-0x4]
   0x4005db <main+52>        cmp     eax, 0x20
→  0x4005de <main+55>        jg      0x4005f6 <main+79>        NOT taken [Reason: !(!Z && S==O)]
```

28 degrees – 0x1C

28 degrees is the lower bound.

30 degrees is more than 28 degrees so jump is not taken

```
HEX   1C

DEC   28
```

```
   0x4005e0 <main+57>        mov     eax, DWORD PTR [rbp-0x4]
→  0x4005e3 <main+60>        cmp     eax, 0x1c
   0x4005e6 <main+63>        jle     0x4005f6 <main+79>
```

```
   0x4005e3 <main+60>        cmp     eax, 0x1c
→  0x4005e6 <main+63>        jle     0x4005f6 <main+79>        NOT taken [Reason: !(Z || S!=O)]
```

27 degrees – 0x1B

27 degrees is not greater than 33 degrees so jump is not taken

```
HEX   1B

DEC   27
```

```
    0x4005d8 <main+49>        mov    eax, DWORD PTR [rbp-0x4]
    0x4005db <main+52>        cmp    eax, 0x20
 →  0x4005de <main+55>        jg     0x4005f6 <main+79>        NOT taken [Reason: !(!Z && S==O)]
```
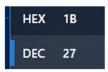
28 degrees is the lower bound

27 degrees is lesser than 28 degrees so jump is taken

```
    0x4005e3 <main+60>        cmp    eax, 0x1c
 →  0x4005e6 <main+63>        jle    0x4005f6 <main+79>        TAKEN [Reason: Z || S!=O]
 ↳     0x4005f6 <main+79>        lea    rdi, [rip+0xf3]         # 0x4006f0
```