Student's question: I didn't understand why the negation of four is minus five.

Answer:
speific to the example and when 'x' is an integer, ^x means x + 1, and also reverse the sign;

x=4

0	0	0	0	0	1	0	0	
							1	+

y=1

x+y = -5

-	0	0	0	0	1	0	1

x=3

0	0	0	0	0	0	1	1	
							1	+

y=1

x+y = -4

-	0	0	0	0	1	0	0

x=5

0	0	0	0	0	1	0	1	
							1	+

y=1

x+y = -6

-	0	0	0	0	1	1	0

```
var a byte
var b int
a = 3
b = 3
fmt.Printf("%8d %08b\n", a, a)   //   3 00000011
fmt.Printf("%8d %08b\n", b, b)   //   3 00000011
fmt.Printf("%8d %08b\n", ^a, ^a) // 252 11111100
fmt.Printf("%8d %08b\n", ^b, ^b) //  -4 -0000100

fmt.Println()
a = 4
b = 4
fmt.Printf("%8d %08b\n", a, a)   //   4 00000100
fmt.Printf("%8d %08b\n", b, b)   //   4 00000100
fmt.Printf("%8d %08b\n", ^a, ^a) //251 11111011
fmt.Printf("%8d %08b\n", ^b, ^b) //  -5 -0000101
```