# Comparing Integer Representations
### The Thrilling Conclusion!

We've finally arrived at the end of our competition. Let's see that scoreboard!

| | Negation? | One Zero? | Zero = 0000 0000 | Continuous? | Monotonically Increasing? |
|---|---|---|---|---|---|
| Unsigned | | ✔ | ✔ | ✔ | ✔ |
| Sign Magnitude | ✔ | | ✔ | | |
| One's Complement | ✔ | | ✔ | | ✔ |
| Two's Complement | ✔ | ✔ | ✔ | | ✔ |
| Bias | ✔ | ✔ | | ✔ | ✔ |

Well, well! It appears we have a three-way tie among Unsigned, Two's Complement, and Bias! We can certainly give each of our winners a prize, though!

Unsigned, you'll be the representation for data whenever users call upon the **unsigned** modifier in C! I've heard that other languages use it, too, so you'll work for them as well.

**unsigned** char foo = 24;

$00011000_2$
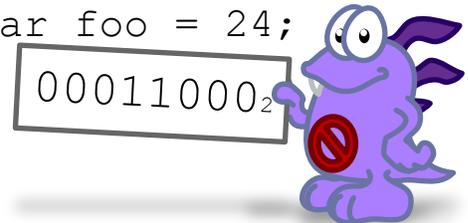
Bias, you'll represent the exponent in IEEE-754 floating-point numbers! The fact that we can compare exponents with an unsigned comparator will come in handy!

$10000000_2$

$1_{10}$

$-127_{10}$

And you, Two's Complement, because you can negate and have one zero that is expressed as all zero bits, you will be the representation of integers for binary computers all around the world!

**signed** char bar = -24;

$11101000_2$

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