

-NoValue-

# Use of Binary in Computing

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## Types

```
int x = 65;
System.out.println(x);
// 65
System.out.println((char) x);
// A
System.out.println(Integer.toBinaryString(x));
// 1000001
System.out.println((float) x);
// 65.0
int y = Float.floatToIntBits((float) x);
System.out.println(Integer.toBinaryString(y));
// 10000101000001000000000000000000
```

## Integer Addition

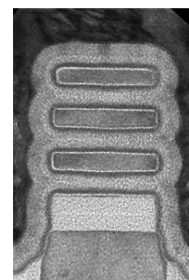
	55	110111
+	33	100001
<hr/>		
	88	1011000

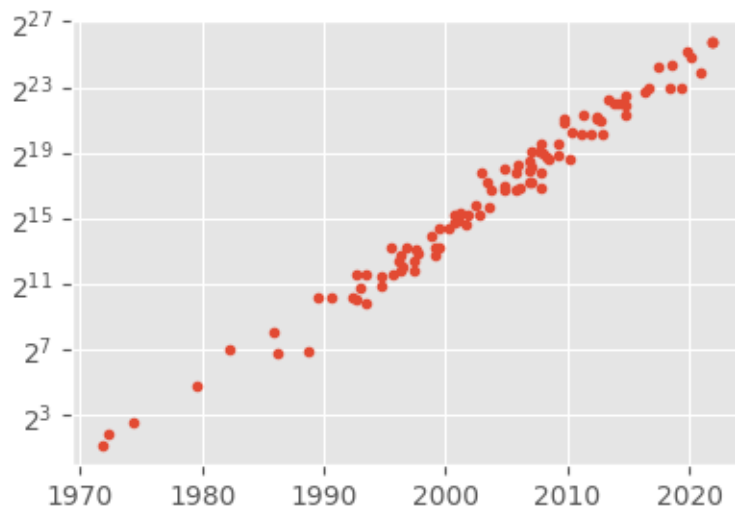
## Integer Multiply by Two

	55	110111
×	2	10
<hr/>		
		000000
+		1101110
<hr/>		
	110	1101110

## Nanometers

nm	Nanometre	0.000000001 metres
	Nanometre	$10^{-9}$ metres
pm	Picometre	$10^{-12}$ metres
	Atomic Radius of Silicon	111pm



*Moore's Law**From Physical to Logical*