Symbolic Computing

> **What**: Concept of Symbolic Computing
> **Why**: Computing with symbols and non-numerals
> **Time To Complete**: 1 hour



Why?

As discussed in previous class notes, the nature of algebra is conducive to expand our abilities to understand and compute geometries.

Symbolic Computing, in part, is the very software engine that functions the said algebra's symbols and expressions.

Therefore, naturally Symbolic computing goes hand in glove with algebra.

What?

See simple example of use of Free Form language's symbolic computing capabilities. Notice no numbers, all in symbols.

```
var1 = a + b;
var2 = a - b;

res = var1 * var2;

show res;

res2 = expand[var1 * var2];

show res2;

save as symbolics;
```

Output:

```
{
res  =  (a - b)*(a + b)
,
res2  =  a^2 - b^2
}
```

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