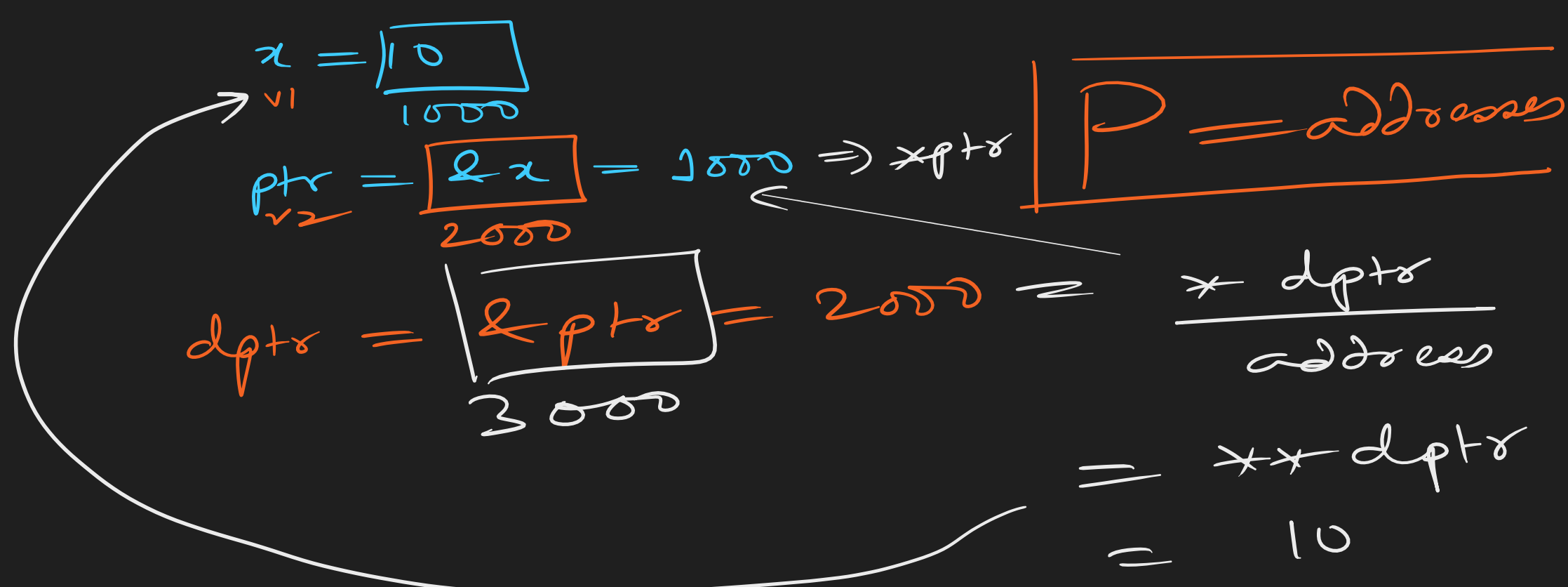


Pointers continued: \rightarrow data

$\text{int } x = 10;$
 \downarrow data type
 \downarrow var
 \downarrow mem loc \Rightarrow address \rightarrow CPU
 $(0x100x0)$ Compiler

1. Address Operator $\Rightarrow (&x)$ Address
2. Pointers \rightarrow It is a var to store address of another variable

$\text{int } *ptr = \&x$
 $\text{int } *ptr = \&x$
 $\text{int } **ptr = \&ptr$



$\text{int } x = 20$
 $\text{main } y = 30$

$\text{void findMax}(\text{int } *x, \text{int } *y)$
 $y = 30$ is larger than $x = 20$;
 $\{$

Arrays: \rightarrow Collection of Homogeneous Data

Any one particular data type:

- * Numbers
- * Decimals
- * Characters
- * Arrays

Example: $\text{int } arr[] = \{9, 6, 8, 1, -2, 4\}$

- 1 2 3 4 5 6 \rightarrow position
- 0 1 2 3 4 5 \rightarrow index

Calculations:

- $\text{ind} = \text{pos} - 1$
- $\text{pos} = \text{ind} + 1$
- (0-based index)

* Max & Min in an array:
 * Average

1, 2, 3, 4, 5
 \rightarrow Sum
 $\frac{15}{5} \rightarrow (3)$
 $\rightarrow (5 | 3)$

Mn
 1, 2, 3, 4, 5
 \downarrow Mn
 sum
 no of element