

Pointer expressions

```
int x = 5;
int* xPtr = &x;
int** p = &xPtr;
```

Address	Variable	Type	Value
#90	x		
#94	xPtr		
#98	p		

Given this block of code, complete the table above by filling in the type and the value for each variable.

You can now use the table as a map of the program's memory, showing both the structure and content of the memory as it would be after executing the block of code.

Now complete the following table. For each expression, fill in:

- the expression's **type** (equivalent to the type of the expression's value)
- the **simplest equivalent expression**, made using only variable names (and maybe operators **&** and *****)
- the expression's **value** (result of evaluating the expression) – either an integer value or an address value

Expression	Expression type (or error)	Simplest equivalent expression using only <u>variables</u> and <u>operators</u> (or error)	Expression value <u>integer value</u> or <u>address value</u> (or error)
*p			
**p			
***p			
&p			
&&p			
&&&p			
&*p			
*&p			
&**p			
*&*p			
**&p			
*xPtr			
**xPtr			
&xPtr			
*x			
&x			
&&x			
*&x			