

# Arrays & Pointers in C and C++

## For the code below:

1. What is the value of &A?
2. What is the value of &A[3]?
3. What is the value of \*ptr?
4. What is the value of A[0]?
5. What is the value of A[5]?
6. What is the value of ptr\_to\_ptr?
7. What is the value of (ptr+2)?
8. What is the value of \*(ptr+2)?
9. What is the value of A[0] + A[2]?
10. What is the value of A[1] + \*(&A +2)?

```
//sizeof (int) = 1
/*
A is an array of integers starting at address 0000 in memory
*/
int *ptr; //located at address 0020 (in decimal) in memory
int **ptr_to_ptr;
ptr = &A;
ptr_to_ptr = &ptr;
int A[20] = {2, 4, 8, 16, 32};
```

1. 0000
2. 0003
3. 2
4. 2
5. 0
6. 0020
7. 0002
8. 8
9. 10
10. 12