

Evaluate the following expressions assuming 32 bit integers and 32 bit pointers. Variables are declared as listed but after some unknown number of operations the current state of the memory is given by the supplied memory diagram.

```
struct my_vector
{
    int size;
    int capacity;
    int* data;
};
typedef struct my_vector My_vector;
My_vector v; 12 bytes
My_vector* p; 4 bytes
```

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Variable Name	Memory Address	Value	
v	8000	3	v.size
	8004	4	v.capacity
	8008	9004	v.data, contains 9004 as an address
p	8012	9028	
	8016	10000	
	8020	9020	
	
	9000	42	
	9004	63	
	9008	5	
	9012	100	
	9016	87	
	9020	14	
	9024	101	
	9028	2	
	9032	3	
	9036	9016	

- instant variable access
→ pointers
1. v.data _____
 2. v.data[2] >> 2 _____
 3. &p _____
 4. p->data[3] % 5 _____
 5. (*p).size _____