Cache Problem

The following C program is run on a machine with a cache that has four words per block and holds 256 bytes of data (i.e. total size of cache).

```c
int i, j, c, stride, myArray[256];
...
for (i = 0; i < 1000; i ++){
    for (j = 0; j < 256; j = j + stride){
        c = myArray[j] + 5;
    }
}
```

Assume the following:
- word size = sizeof(int) = 4 bytes
- myArray begins at memory address 0
- cache is initially empty
- variables i, j, and c, and stride are stored in registers

a. What is the miss rate (total misses/total references), if stride = 132 (i.e. 100001002) ?

Hint: Figure out cache details (tag bits, block bits and word bits). Knowing the total number address bits is not necessary.

b. What is the miss rate, if stride = 131 (i.e. 100000112) ?

c. Would the miss rate from part (a) and (b) change if the cache were 2-way set associative?