**Ex1**

**NO. 1**

Venus won't let you change this, why?

Set as *Direct Mapping*.  
Cache Size(Bytes): 32(why?)

手机屏幕截图

描述已自动生成Blocksize \* (Number of blocks) = 8 \* 4 = 32

**Checkoff 1**

The hit rate is 0.

**Checkoff 2**

Always 0. All access are directed to a single block, causing always miss.

**Checkoff 3**

Set stepsize to be 1. The max hit rate is 0.5 (Miss-Hit-Miss-Hit-...).

图片包含 游戏机

描述已自动生成**NO.2**

**Checkoff 1**

The hit rate is 0.75.(Explained in image)

**Checkoff 2**

Will go to 1.

**Checkoff 3**

Cache Blocking. Process data per block where block size is the cache size and can be fitted in the whole cache.

**NO.3**

**Checkoff 1**

From 0 to 0.5. (Explained in image)手机屏幕截图

描述已自动生成

**Checkoff 2**

**Method 1**

Change Associativity to 1. The hit rate is constantly 0.5.

**Method 2**

Change Number of Blocks to 64. The hit rate is constantly 0.5.

**Method 3**

Change Block size to 64. The hit rate is constantly 0.75.

**Method 4**

Change Number of Blocks to 32 and Block size to 32.

The hit rate is constantly 0.5.

**Method n**

As long as (Number of Blocks) \* (Block size) / (Associativity) multiplied by 4(or bigger).

The hit rate is 0.5 if Block size < 64 and 0.75 if Block size = 64 and 0.875 if Block size = 128 and 0.9375 if Block size >= 256. (Determined by how many data will be cached during one read)

**Method n+1**

There are methods to let hit rate be 0 such as changing # of Blocks to 1 and Block size to 1.