```
instructionCacheMainMemory?
                                             x <= CACHEFETCH
          write hit wait -= 1
                                               write hit wait == 0 &&
          write hit wait >= 1
          instructionCacheMainMemory!
                                               x < CACHEFETCH
               write hit wait != 0 II
                                                     x == CACHEFETCH
               x == CACHEFETCH
          cache contents(instrAdr) == -1
                                                  cache contents(instrAdr) != -1
          insert(instrAdr.1)
                                                  update(instrAdr, 1), x = 0
   write hit wait == 0
instructionCacheWrite!
                          instructionCacheWrite?
        initCaches?
initialiseDataCache()
instructionCacheRead!
                          instructionCacheRead?
   write hit wait == 0
                                                  cache contents(instrAdr) != -1
          cache_contents(instrAdr) == -1
                                                  update(instrAdr, 0), x = 0
          insert(instrAdr, 0)
              write hit wait != 0 ||
                                                      x == CACHEFETCH
              x == CACHEFETCH
                                               write hit wait == 0 &&
          write hit wait >= 1
                                               x < CACHEFETCH
          instructionCacheMainMemory!
    instructionCacheMainMemory?
          write hit wait -= 1
                                            x <= CACHEFETCH
```