1. Memory hierarchy

    a. Forms a pyramid

    b. Key to success of the hierarchy

    c. Locality types
        i. Temporal locality

        ii. Spatial locality

    d. Locality is the key behind why caches work so well

2. Cache principles
    a. Cache holds a much smaller subset of RAM's contents

    b. Terminology
        i. Memory *block*

        ii. Cache *line*

        iii. Cache *tag*

        iv. Cache *hit*

        v. Cache *miss*

        vi. *Valid* bit

        vii. *Eviction*

        viii. *Dirty* bit

3. Cache addressing
    c. What type of addresses does the cache use?
    d. Cache addresses can be *physical*

    e. Can also be *logical*

        i. However, these caches encounter the *aliasing* problem

4. Cache design
    f. Multiple-level caches

    g. Unified or split

    h. Cache size