## CS5541 – Computer Systems Caches Again

The following table gives the parameters for a number of different caches, where  $\mathbf{m}$  is the number of physical address bits,  $\mathbf{C}$  is the cache size (number of data bytes),  $\mathbf{B}$  is the block size in bytes, and  $\mathbf{E}$  is the number of lines per set. For each cache, determine the number of cache sets ( $\mathbf{S}$ ), tag bits ( $\mathbf{t}$ ), set index bits ( $\mathbf{s}$ ), and block offset bits ( $\mathbf{b}$ ).

Cache	m	С	В	E	S	t	S	b
1	32	1024	4	4	64	24	6	2
2	32	1024	4	256	1	30	0	2
3	32	1024	8	1	128	22	7	3
4	32	1024	8	128	1	29	0	3
5	32	1024	32	1	32	22	5	5
6	32	1024	32	4	8	24	3	5