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Problem 1:

page number is composed of the left-most " 8 bits " because there are 20 bits and 12 bits is needed for an offset so 20-12 = 8 bits.

1, 6, 8, 3B, D1, DF, 85, 85, 85, D1, 5F, 5F, A5, AA, 7A, 80, AA, AA, 80, A5

1	6	8	3B	D1	DF	85	85	85	D1	5F	5F	A5	AA	7A	80	AA	AA	80	A5
1	1	1	1	**D1**	D1	D1	D1	D1	D1	D1	D1	D1	D1	**7A**	7A	7A	7A	7A	7A
	6	6	6	6	**DF**	DF	DF	DF	DF	DF	DF	**A5**	A5	A5	A5	A5	A5	A5	A5
		8	8	8	8	**85**	85	85	85	85	85	85	**AA**	AA	AA	AA	AA	AA	AA
			3B	3B	3B	3B	3B	3B	3B	5F	**5F**	5F	5F	5F	**80**	80	80	80	80

Problem 2:

1: set = { 8,3B,D1,DF, 85} ; size of set is 5
2: set = {85,85,85,DF,D1} ; size of set is 3
3: set = {5F,5F,D1,85,85} ; size of set is 3
4: set = {5F,A5,AA,7A,80}; size of set is 5

Problem 3:

1	6	8	3B	D1	DF	85	85	85	D1	5F	5F	A5	AA	7A	80	AA	AA	80	A5
1	2	3	4	5	5	5	4	3	3	3	3	4	4	4	5	4	3	3	2

Total size is 71/20 = 3.55