

1a.  $\$2 * 0.12 + 3 * 0.18 + 7 * .21 + 2 * .18 + 9 * .17 + 4 * .14 = 4.7\$$

1b.  $\$median = \frac{3+4}{2} = 3.5\$$

2. A and B, A and C, A and D, B and C, B and D, C and D

3.

$$P(A) = P_{\{1\}}(A) * P_{\{2\}}(A) = .6 * .7 = .42\$$$

$$P(B) = P_{\{1\}}(B) * P_{\{3\}}(B) = .4 * .5 = .2\$$$

$$P(C) = P_{\{2\}}(C) * P_{\{3\}}(C) = .3 * .5 = .15\$$$

classified as A because highest P so

4. feature set =  $\{1, 2, 3, 4, 5, 6, 7, 8, 9, 0\}$

set 1 =  $\{1, 2, 3, 4, 5\}$

set 2 =  $\{6, 7, 8, 9, 0\}$

set 3 =  $\{1, 1, 5, 9, 0\}$

set 4 =  $\{1, 2, 3, 4, 0\}$