Directions: Read and answer the following questions. Work carefully and be sure to show all steps to receive full credit. Good luck! (Round your calculations to 4 decimal places)

Name and Section: _____

1. (5 points)Lowndes' Method:In 1790 Delaware was composed of three counties, as it is today. The populations of these counties based on the 1790 census are listed below. Use Lowndes' method to apportion a hypothetical state legislature of 76 seats among these counties.

County	Population	Natural Quota	Initial Allocation	Relative Fractional Part	Final Allocation
Kent	18,920	24.3328	24	.0139	25
New Castle	19,686	25.3179	25	.0127	25
Sussex	20,488	26.3493	26	.0134	26
Total	59,094		75		76

Natural division $= \frac{59,094}{76} = 777.5526$

$NQ_{Kent} = \frac{18920}{777.5526} = 24.3328$

$NQ_{Ne.Ca} = \frac{19686}{777.5526} = 25.3179$

$NQ_{Sussex} = \frac{20488}{777.5526} = 26.3493$

one seat left over

$RFP_{Kent} = \frac{.3328}{24} = .0139$

$RFP_{N.C} = \frac{.3179}{25} = .0127$

$RFP_{Sussex} = \frac{.3493}{26} = .0134$

2. (5points) Now repeat the above example using Hamilton's method.

County	Population	Natural Quota	Initial Allocation	Final Allocation
Kent	18,920	24.3328	24	25
New Castle	19,686	25.3179	25	25
Sussex	20,488	26.3493	26	27
Total	59,094		75	76

Natural division $= 777.5526$

one seat left over

★ all natural quotas remain the same ★