Practice Set 21 Nonparametric Hypothesis Testing of Ordinal Data Part I

I. Darin wants to determine whether the page 68 computer components were drawn at random. The median of 30.045 mg is the standard for this test. Determine at the .05 level of significance whether this data was randomly collected. Data was recorded one column at a time starting at the top of each column. Columns were recorded from left to right.

29.89	30.05	29.98	30.07	29.97	30.05	29.95	30.06	29.99	30.02	30.09	30.12
29.96	29.97	30.06	30.05	29.95	29.95	29.99	29.89	29.99	30.08	30.06	30.16
29.97	29.98	30.04	30.06	30.05	30.09	30.06	30.09	29.98	30.01	30.08	30.15

II. Darin first studied the number of defective 30-milligram parts on page 96. At that time he did a parametric study because he felt the data was normally distributed. The consistency of raw material inputs has changed and Darin isn't sure the distribution is still normal. Do a .05 level of significance sign test to determine whether defects have increased from last year's median of 5.

Sample	Median Defects
1	6
2	7
3	5
4	4
5	8
6	6
7	7