Activity 3a -- One last example

Situation: 4 randomly selected subjects were put on a fish-oil diet. 3 other subjects remained on their normal diets. The following table shows the reduction in blood pressure for each subject 6 months after this study began:

Fish oil	Regular Diet
10	-6
5	12
42	-20
-5	

To simplify the arithmetic, let's convert this data into ranks and then test to see if fish oil reduces blood pressure:

Fish oil	Regular Diet
5	2
4	6
7	1
3	

Note: Higher ranks = greater reduction in blood pressure

1) Test statistic:

2) Null hypothesis:

   Alternate hypothesis:

3) Possible errors:

4) Number of randomizations possible:

5) Number of randomizations yielding results as or more extreme than the results we observed (assuming the null hypothesis is true):

6) Conclusion: