

Question #172**Key: D**

The CDF is $F(x) = 1 - \frac{1}{(1+x)^4}$

| Observation (x) | F(x) | compare to: | Maximum difference |
|-----------------|-------|-------------|--------------------|
| 0.2 | 0.518 | 0, 0.2 | 0.518 |
| 0.7 | 0.880 | 0.2, 0.4 | 0.680 |
| 0.9 | 0.923 | 0.4, 0.6 | 0.523 |
| 1.1 | 0.949 | 0.6, 0.8 | 0.349 |
| 1.3 | 0.964 | 0.8, 1.0 | 0.164 |

The K-S statistic is the maximum from the last column, 0.680.

Critical values are: 0.546, 0.608, 0.662, and 0.729 for the given levels of significance.

The test statistic is between 0.662 (2.5%) and 0.729 (1.0%) and therefore the test is rejected at 0.025 and not at 0.01.