- 7. [8 points] For each question below, circle TRUE or FALSE or NEI (Not Enough Information). Justify your answer *briefly*. No partial credit if explanation is left blank.
  - **a**. [2 points] The exponential function  $f(t) = e^{1.02t}$  grows more slowly than the exponential function  $g(t) = 1.05^t$ .

TRUE FALSE NEI

**Explanation**:

**b**. [2 points] If a exponential function E(t) decays by 15% between t = 0 and t = 2, it will also decay by 15% between t = 1 and t = 3.

TRUE FALSE NEI

Explanation:

c. [2 points] The function log(x) grows so slowly that it eventually approaches a horizontal asymptote.

TRUE FALSE NEI

**Explanation:** 

**d**. [2 points] If the doubling time of exponential function h(t) is 25 years, then its annual growth factor is  $\frac{\log 2}{\log 25}$ .

TRUE FALSE NEI

**Explanation**: