Name: _____

DATA 420 — Spring 2024
Reading check #7: Silver chapter 4
Feb. 15, 2024

1. What's Laplace's Demon?

2. True or false: When the Weather Channel thinks there's about a 5% chance of rain tomorrow, it will report a 5% chance of rain tomorrow. _____

3. Today's best computer models, when predicting the weather three days out, are:
   ☐ better than a guess based purely on climatology
   ☐ about the same as a guess based purely on climatology
   ☐ worse than a guess based purely on climatology

4. A weather simulation is representing our three-dimensional atmosphere as it evolves over time. How much more computing processing power do we need if we want to double the resolution of its forecast?   _____ *times as much*

5. True or false: The term "chaos theory" as applied to weather predictions essentially refers to the fact that there is innate *randomness* present in the system. _____

6. True or false: When so-called human "experts" on the weather add their powers of intuition and interpretive vision to a quantitative, data-driven, computer-simulation-based forecast, they tend to worsen its accuracy. _____

7. Today's best computer models, when predicting the weather fifteen days out, are:
   ☐ better than a guess based purely on climatology
   ☐ about the same as a guess based purely on climatology
   ☐ worse than a guess based purely on climatology

8. True or false: When the Weather Channel reports a 75% chance of rain tomorrow, you can expect that there's about a 75% chance it will rain tomorrow. _____