

Quiz 2 (20 pts)

Your Name:

1. (5 pts) Compare and contrast the *Fourth Paradigm* to the other science paradigms.
2. (5 pts) **(a)** What are the pros and cons of an experimental framework? **(b)** What are the pros and cons of an observational framework? **(c)** What is a counterfactual?
3. (5 pts) In the article titled “Competing on Analytics,” the author explains several business applications that are using analytics. For example, he mentions how UPS, Dell, and Amazon are using analytics to optimize supply chains. Provide two more examples and explain.
4. (5 pts) **(a)** What is the difference between supervised and un-supervised learning? **(b)** There are several sub-classes of supervised and un-supervised learning. Place the following in either supervised or un-supervised learning: regression, clustering, co-occurrence, causal modeling, profiling, link prediction, similarity matching