

# Quiz 1

Math 105

Summer 2020

You have 30 minutes to complete this quiz (**this includes the time it takes to scan and upload it**). You may not use a calculator, your notes, the textbook, or any other resources. Write your solutions on a separate sheet of paper, and when you're finished, first check your work if there is time remaining, then scan the quiz and upload it to Canvas. If you have a question, don't hesitate to ask — I just may not be able to answer it.

1. (8 points) Consider the following argument:

1. All dogs are animals.
2. Everything with fur is an animal.
3. My pet has fur.

Conclusion: My pet is a dog.

Is this argument valid or invalid? Draw a Venn diagram proving your answer.

2. (8 points) Give an example of inductive reasoning.

3. (8 points) Construct the truth table for  $(p \vee q) \longrightarrow r$ .