

**Math 1312**  
**Homework 1**

Enter your answers in the EMCF titled “Homework 1” at [casa.uh.edu](http://casa.uh.edu) before the due date/time. If a problem comes from the exercises in the textbook then Problem 1.2.6 refers to Chapter 1, Section 2, problem number 6 etc.

1. Classify the following statement as a simple, a conjunction, a disjunction, or a conditional, if possible: Do not worry and be happy.
  - A. Not a statement
  - B. Simple
  - C. Conjunction
  - D. Disjunction
  - E. Conditional
  
2. Classify the following statement as a simple, a conjunction, a disjunction, or a conditional, if possible: 2 squared is 5.
  - A. Not a statement
  - B. Simple
  - C. Conjunction
  - D. Disjunction
  - E. Conditional
  
3. Classify the following statement as a simple, a conjunction, a disjunction, or a conditional, if possible: Whales are mammals and circles are round.
  - A. Not a statement
  - B. Simple
  - C. Conjunction
  - D. Disjunction
  - E. Conditional
  
4. Classify the following statement as a simple, a conjunction, a disjunction, or a conditional, if possible: Two angles are congruent if they have the same measure.
  - A. Not a statement
  - B. Simple
  - C. Conjunction
  - D. Disjunction
  - E. Conditional
  
5. Classify the following statement as a simple, a conjunction, a disjunction, or a conditional, if possible:  $3 > 7$  and circles are square.
  - A. Not a statement
  - B. Simple
  - C. Conjunction
  - D. Disjunction
  - E. Conditional

6. Classify the following statement as a simple, a conjunction, a disjunction, or a conditional, if possible: All right angles measure 90 degrees.
- A. Not a statement
  - B. Simple
  - C. Conjunction
  - D. Disjunction
  - E. Conditional
7. Give the negation of the following statement:  $5 > 2$ .
- A.  $5 < 2$
  - B.  $5 > 2$
  - C.  $5 \leq 2$
  - D.  $5 = 2$
  - E. None of the above
8. Give the negation of the following statement: Everyone loves ice cream.
- A. Everyone does not love ice cream.
  - B. Some people do not love ice cream.
  - C. Some people love ice cream.
  - D. Some people love pizza.
  - E. None of the above
9. State the hypothesis and conclusion: You get good grades, if you study hard.
- A. Hypothesis: you get good grades; Conclusion: you study hard
  - B. Hypothesis: you get good grades; Conclusion: if you study hard
  - C. Hypothesis: you study hard; Conclusion: you get good grades
  - D. Hypothesis: if you study hard; Conclusion: you get good grades
  - E. None of the above
10. State the hypothesis and conclusion: All circles are round.
- A. Hypothesis: shape is a circle; Conclusion: shape is round
  - B. Hypothesis: shape is round; Conclusion: shape is a circle
  - C. Hypothesis: if shape is a circle; Conclusion: then shape is round
  - D. Hypothesis: if shape is round; Conclusion: then shape is a circle
  - E. None of the above
11. Problem 1.1.20
- A. Not possible to classify
  - B. True
  - C. False
12. Problem 1.1.24
- A. Not possible to classify
  - B. True
  - C. False

13. Problem 1.1.26

- A. No reasoning
- B. Induction
- C. Deduction

14. Problem 1.1.30

- A. No reasoning
- B. Induction
- C. Deduction

15. Problem 1.1.50

- A. You studied hard and hired a tutor.
- B. You studied hard.
- C. No conclusion is possible.