NAME _____ CLASS _____ DATE _____

Practice

2.2 Introduction to Logic

Refer to the following statement to answer Exercises 1–4:

All turtles are reptiles.

1. Rewrite the statement as a conditional.

_____

2. Identify the hypothesis and the conclusion of the statement.

_____

3. Draw an Euler diagram that illustrates the statement.

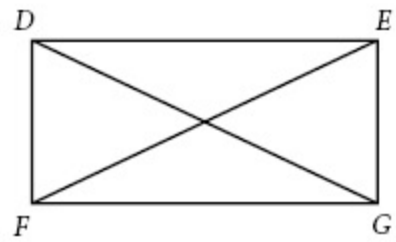
4. Write a converse of the statement and construct its Euler diagram. If the converse is false, illustrate this with a counterexample.

_____

_____

5. Write a conditional statement with the given hypothesis and conclusion, and then write the converse of that statement. Is the original statement true? The converse? If either is false, give a counterexample.

hypothesis: $EF = DG$
conclusion: The diagonals of a rectangle are equal in length.



_____

_____

_____

_____

6. Arrange the three statements below into a logical chain. Then write the conditional statement that follows from the logic.
If it is warm, then it is spring.
If flowers are blooming, then it is warm.
If you see bees, then flowers are blooming.

_____

_____