Name _____

Answer the questions.

1. Define a deductive argument.
   An argument in which the conclusion must follow from the premises.
2. What is a deductive argument with good reasoning called?
   valid
3. What is a deductive argument with good reasoning and true premises called?
   sound

Classify each deductive argument as an addition argument, conjunctive syllogism, disjunctive syllogism, modus ponens, modus tollens, simplification argument, or transitivity argument.

4. Since a Manx is a cat and all cats are carnivorous, every Manx is carnivorous.
   transitivity
5. The skyscraper had its start in Chicago. The Empire State Building is not in Chicago. Therefore, the Empire State Building is not the first skyscraper.
   modus tollens
6. He bought a new tie and he wore it today. Therefore, he was wearing his new tie.
   conjunctive syllogism
7. Since a peony is a flower, then either a peony or a pondwort is a flower.
   addition
8. He's either an idiot or a liar. Since I know he's not an idiot, he must be a liar.
   disjunctive syllogism
9. All people are sinners. Darwin was a person. Therefore, Darwin was a sinner.
   modus ponens

Give the correct conclusion to each of the following deductive arguments.

10. Joe is a murderer. All murderers deserve to die. Therefore,
    Joe deserves death.
11. Pat loves either Bob or Pete. Pat does not love Pete; therefore,
    Pat loves Bob.
12. Bobby is a monkey from Kenya. Therefore,
    Bobby is a monkey (or is from Kenya).
13. All who can keep the law deserve heaven. No person deserves heaven. Therefore,
    no one can keep the law.
14. All flowers are plants, and all plants are beautiful. Therefore,
    all flowers are beautiful.

Name the type of deductive argument you used to supply the missing conclusion above.

15. question 10
    modus ponens
16. question 11
    disjunctive syllogism
17. question 12
    simplification argument
18. question 13
    modus tollens
19. question 14
    transitivity argument

Demonstrate the argument.

20. Prove modus tollens using the derivation technique.

1.	$P \rightarrow Q$	1.	given
2.	$\sim Q$	2.	given
3.	$\sim Q \rightarrow \sim P$	3.	contrapositive rule
4.	$\sim P$	4.	modus ponens

Answer the question.

21. Give the significance of Matthew 22:44–45 for the study of logic.
It presents a modus ponens argument that silenced the scribes.