

Independent Practice: **DEDUCTIVE REASONING**

NAME: _____

DATE: _____

PERIOD: _____

1) Use the Law of Detachment to make a conclusion.

1. All national parks are interesting.
2. Yellowstone is a national park.

Conclusion: _____

2) Use the Law of Syllogism to make a conclusion.

1. If a river is more than 4000 miles long, then it is longer than the Amazon.
2. If a river is longer than the Amazon, then it is the longest river in the world.
3. The Nile River is 4132 miles long.

Conclusion: _____

3) Fill in the blank:

1. If the measure of an angle is 90° , then it is a right angle.
 2. $m\angle X = 90^\circ$.
 3. Therefore, $\angle X$ is _____.
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4) Fill in the blank:

1. A number that can be written as a repeating decimal is rational.
2. π is a number that cannot be written as a repeating decimal.
3. Therefore, π _____.

5) What is your conclusion based on the statements?

1. If three points are on the same line, then they are collinear.
2. Pts. A, B, and C are on line l .

3. Conclusion: _____

6) What is your conclusion based on the statements?

1. If two planes intersect, then they intersect in a line.
2. Plane R and Plane P intersect.

3. Conclusion: _____

7) Point M is a midpoint of segment AB.

What would be your conclusion, if any?

- A) $AB = BA$
 - B) $AM = MA$
 - C) $AB = MA$
 - D) $AM = MB$
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8) Given the statements:

1. If an angle is acute, then it is not obtuse.
2. $\angle XYZ$ is not acute.

What would be your conclusion, if any?

- A) $\angle XYZ$ is obtuse.
 - B) $\angle XYZ$ is acute.
 - C) $\angle XYZ$ is right.
 - D) No conclusion can be reached.
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9) Given the statements:

1. If a number is prime, then it is divisible by 1 and itself.
2. If a number is divisible by 1 and itself, then it is not a perfect square.

Conclusion _____