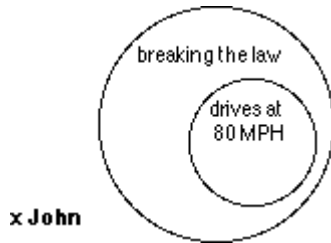


Indirect Reasoning

NAME _____

For questions 1-3, look at the picture and write two forms of the argument.

Example:



Premise: Everyone who drives at 80 MPH is breaking the law.

$p \rightarrow q$: If you drive at 80 MPH, then you are breaking the law.

Premise: John is not breaking the law.

p : John is not breaking the law.

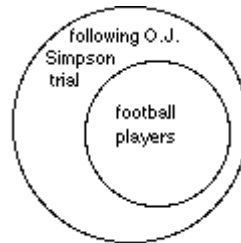
Conclusion: John is not driving 80 MPH.

q : John is not driving 80 MPH.



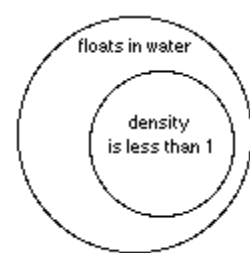
1.

x Saddam Hussein



2.

x Harriet



3.

x copper

For questions 4–6, draw the proper conclusion and give the corresponding diagram.

- Everyone who studies chaos theory is interested in dynamical systems. Richard Gere has no interest in dynamical systems. We can thus conclude that _____.
- If the operation is addition or multiplication, then the associative law holds. For the operation given, the associative law does not hold. We can thus conclude that _____.
- If you live in Kobe, Japan, then you live in a quake-stricken city. Toshima does not live in a quake-stricken city. We can thus conclude that _____.
- On examining the room, Sherlock Holmes observes, “Something has been taken. There is not as much dust in this corner of the shelf than elsewhere.” Write a valid argument that uses indirect reasoning and has Holmes’s deduction as its conclusion. Draw an appropriate diagram.
- Explain why the following argument is invalid. Draw the corresponding diagram.

Premise: All plastic toys are unbreakable.

Premise: This yellow truck is not plastic.

Conclusion: This yellow truck is not unbreakable.