

130 WORKSHEET (1.3)

Name \_\_\_\_\_

Identify whether inductive or deductive reasoning is being used. *Remember you are not responsible for validating the conclusion – just recognize the type of reasoning used.*

1. It has rained on Friday for the last six weeks. I conclude that it always rains on Fridays.
  
2. Since  $10 \times 3 = 30$  and  $10 \times 4 = 40$ , I conclude that anytime you multiply by 10 you get a number than ends in zero.
  
3. Given  $2x = 4$ , I conclude that  $x = 2$ .
  
4. The last four times I wore my favorite blue shirt I had good luck. I conclude that wearing my favorite blue shirt gives me good luck.
  
5. Decide whether or not the conclusion can be deduced from the first two hypotheses. Draw a Venn diagram that supports your answer.

Hypotheses: All cockroaches are beautiful.  
All young things are beautiful.

Conclusion: All cockroaches are young.

6. Draw a valid conclusion from the hypotheses.

Hypotheses: Martina is taller than Gabriela  
Gabriela is taller than Steffi

Conclusion:

7. Consider the following number trick.

Pick a number.

Add 10.

Multiply by 2.

Add your original number.

Subtract 14.

Divide by 3.

- A. Use inductive reasoning to make a conjecture about what will happen with any number.
- B. Use deductive reasoning to prove your generalization.