

Introductory Logic

Homework #4



Read pages 13-20 of *Introductory Logic*. Define the following, summarizing from the text:

- consistency
- implication –
- logical equivalence –
- independence –
- real disagreements –
- apparent disagreements –
- verbal disagreements –

For practice, try these questions. Check your work with the answers in the box below.

1. Are these statements *consistent*? _____
 All reptiles are cold-blooded animals.
 Some reptiles are not cold-blooded animals.
2. Does the first statement *imply* the second? _____
 All men are sinners.
 Some men are sinners.
3. Are these statements *logically equivalent*? _____
 All fathers are men.
 All men are fathers.
4. Are these statements *independent*? _____
 Some home-schooled students study Geometry.
 Some privately-schooled students study Algebra.

Name the type of disagreement between these pairs of statements:

5. 1st person: I like red and purple together.
 2nd person: I think red and purple clash! _____
6. 1st person: Our church is very large.
 2nd person: No, our church is fairly small. _____

7. 1st person: The Bible is absolutely true.

2nd person: Some of the Bible is true, but some is fiction. _____

Answers to the practice: 1. No 2. Yes 3. No 4. Yes 5. Apparent disagreement 6. Verbal disagreement 7. Real disagreement

If you had any trouble with the practice exercises, review pages 13-20. Otherwise, complete Exercise 4 on the next page.

Exercise 4 (pages 16-17). Circle the correct answer.

- | | | | |
|----------|-----------|-----------|-----------|
| 1. Y / N | 6. Y / N | 11. Y / N | 16. Y / N |
| 2. Y / N | 7. Y / N | 12. Y / N | 17. Y / N |
| 3. Y / N | 8. Y / N | 13. Y / N | 18. Y / N |
| 4. Y / N | 9. Y / N | 14. Y / N | 19. Y / N |
| 5. Y / N | 10. Y / N | 15. Y / N | 20. Y / N |

21. Write two statements which are consistent and independent.

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22. Write an example of a real disagreement.

1st person:

2nd person:

23. Write an example of an apparent disagreement.

1st person:

2nd person:

24. Write an example of a verbal disagreement.

1st person:

2nd person:

(You may do Exercise Five on page 20 on your own for extra practice if you wish, but it is not necessary.)

*** Test #1 is next week, covering what we have learned so far in the *Introductory Logic* text (pages 1-20). You should review your study notes. ***

Cranium Calisthenics

Who killed Chuck? (Exactly three of the following statements are false.)

Tuck: I am not the killer.

Luck: Chuck was murdered by Shuck.

Cluck: Luck killed Chuck!

Shuck: I did not kill Chuck!

Who is the killer? _____

(Remember - try to answer this on your own. If you need help, see the "Cranium Calisthenics" page on the website. Open "CC_Hints_4" (homework #4). Do not ask a parent, sibling, or anyone else to solve it for you!)

