

STUDY OUTLINE FOR VERSE ANALYSIS

Note: *Italicized numbers* refer to books listed at the end of this paper.

I. Observational Analysis

A. Historical Overview

1. Author
2. Date of writing
3. Place of writing
4. To whom written
5. Occasion of writing
6. Intent, plan, scope of author
7. Cultural/geographic background
8. Context
  - a. General
  - b. Specific
  - c. Immediate

Sources (general)

- Biblical: Old Testament and New Testament texts, versions, translations
- Concordances: *1 or 2; 3 or 4*
- Extra-Biblical: Commentators; Old Testament and New Testament introductions; geographies; atlases; customs; Bible dictionaries and encyclopedias

B. Textual and Grammatical Overview

1. Literary genre
  - a. Divisions
  - b. Subdivisions
2. Consult interlinear
  - a. O.T. - Pointed and unpointed; punctuation
  - b. N.T. - Capital and lower case; punctuation
3. Parse the words (identify grammatically)
4. Check for variants

Sources (general)

- Biblical
  - O.T.: *5; 6*
  - N.T.: *7; 8; 9; 10*
- Lexicons:
- Extra-Biblical: Commentators; O.T. and N.T. introductions; *13*

C. Interpretive Problems

1. Textual
2. Lexical
3. Grammatical
4. Historical
5. Theological
6. Exegetical

Sources (general)

- All of the above
- Others: *14; 15*

(continued)

II. Textual Analysis

A. Textual  
Sources

- O.T.: 6; 14; *footnotes in 16, 17, 18*
- N.T.: 7; 10; 15

B. Early Versions

Sources: 6; 19; 20 (*for "Peshitta" version*); 21; 22

C. Later English Versions (translations)

Sources: 16; 23; 24; 17; 25; 18; 26; *etc.*

D. Textual Criticism

Sources: Use above sources; note principles in front of UBS

III. Structural Analysis

Diagram the verse (students of Greek and Hebrew)

Sources: 27

IV. Lexical Analysis

A. Locate the word

Sources: *Interlinears; analytical lexicons; Englishman's Concordances (indexes)*; 28; 29

B. Parse the word (identify it grammatically)

Sources: *Analytical lexicons*; 30

C. Inductive Study

1. Historical

a. Etymology

Sources

-- O.T.: 11; 31; 32; 33; 34; 14; 35; 36

-- N.T.: 12; 37; 38; *standard word studies*; 39; 40; 41; 42; 43

b. Locus loquendi (current usage)

Sources

-- O.T.: 32; 33; 34; *LXX (and other early versions); quotes by early fathers (ante-nicene series)*

-- N.T.: 40 (*Classical*); 21, 22, 39; 44, 45 (*koinē*); 46 (*Patristic*); 38; 37; 47; *Philo*; 48; *word studies*

c. Usage in Bible

Sources

-- O.T.: 3; 4

-- N.T.: 1; 2

2. Contextual

a. Usus loquendi (special usage of author)

"Circles of context"

Sources

-- O.T.: 3; 4

-- N.T.: 1; 2

b. Frequency of occurrence

Sources

-- O.T.: 3; 4; 49; 36; 53

-- N.T.: 1; 2; 50

c. Cognate words in same language

Sources

-- O.T.: 11; 31; 32; 53

-- N.T.: 12; 38; *etc.*

- d. Synonyms  
Sources  
-- O.T.: 51  
-- N.T.: 52; 39
- e. Multiple meanings  
Sources  
-- O.T.: 14; *commentators*  
-- N.T.: *lexicons; word studies; commentators*

V. Grammatical Analysis

A. Accidence

- 1. Form  
Sources: 11; 12
- 2. Form variation  
Sources  
-- O.T.: 54; 98  
-- N.T.: 55; 56; 57

B. Syntax

- 1. Key words, phrases
- 2. Word order (emphasis)  
Sources:
- 3. Punctuation  
Sources  
-- O.T.: 16; 23; 24; 17  
-- N.T.: 7; *various translations*
- 4. Clauses
- 5. Similar word forms  
Sources (general)  
-- O.T.: 58; 54; 59; 60  
-- N.T.: 55; 56; 57 (*vol. 3*); 61

C. Context

- 1. Circles of context  
Sources  
-- O.T.: 4; 3  
-- N.T.: 2; 1
- 2. Parallel constructions  
Sources (same as above)

D. Literary genre

Sources: O.T. and N.T. introductions; hermeneutics books

E. Style

- 1. General
- 2. Specific
- 3. Immediate  
Sources: Same as above; 57 (*vol. 4*)

F. Special uses of language

- 1. Idioms
- 2. Figures of speech  
Sources  
-- O.T.: 62; 54  
-- N.T.: 62; 63; *word studies; commentators; lexicons*

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VI. Historical Analysis

A. Geography

1. Topography
2. Climatology
3. Flora and fauna
4. Traditional boundaries

Sources (general): 64; 65; 66; 67; 68; 69

B. Customs

Sources: 70; 71; 72; 73; commentators

C. History

1. Chronology
2. Politics
3. Economics
4. Religions

Sources:

-- O.T.: 74; 77; 78; 75

-- N.T.: 47; 76; 79; 80; 81; 82; 83; 84; works by Ramsay

D. Archaeology

Sources: 85; 87; 87; 88; 89; 90; recent commentators

E. Context

1. Historical references

- a. Biblical
- b. Non-Biblical

2. Historical perspectives

- a. Character and circumstances of author
- b. Character and circumstances of original readers
- c. Circumstances peculiar to writing

Sources: 1; 2; 3; 4; O.T. and N.T. introductions; commentators; 90

VII. Theological Analysis

A. Problem Areas

1. Theological prejudice
2. Language barrier
3. Cultural barrier

B. Biblical and/or Systematic Theology

1. Tenor of Scripture
2. Alternate possibilities
3. Implications

Sources (general): 91; 92; 38; 93; 37; 32; commentators; systematic theologies; books on specific areas

VIII. Exegetical Analysis

A. Collate and evaluate all evidence

B. Commentaries

C. O.T./N.T. Parallels

Sources: 7 (2nd and 3rd ed., index in back)

D. Typology

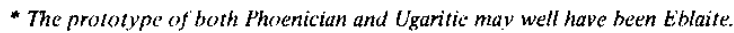
Sources: works by Brethren writers; 94; some early fathers; 95; 96; class notes

E. Additional considerations

1. *Concordance to the Greek Testament* (Moulton and Geden)
2. *New Englishman's Greek Concordance* (Wigram)
3. *Old Testament Concordance-Hebrew and Chaldee* Note title in Latin (Mandelkern)
4. *New Englishman's Hebrew Concordance* (Wigram)
5. *Interlinear Hebrew-Greek-English Bible* (Green)
6. *Biblia Hebraica* (Kittel)
7. *Greek New Testament* (UBS)
8. *Kingdom Interlinear Translation* (Westcott and Hort text)
9. *The Sacred Scriptures* (Concordant Greek text)
10. *Novum Testamentum Graece* (Nestle text)
11. *Analytical Hebrew Lexicon* (Wigram)
12. *Analytical Greek Lexicon* (Wigram)
13. *Explore the Book* (Baxter)
14. *Old Testament Translation Problems* (Hulst)
15. *A Textual Commentary on the Greek New Testament* (Metzger)
16. *Emphasized Bible* (Rotherham)
17. *Holy Bible--New International Version* (NIV)
18. *Holy Bible--Revised Standard Version* (RSV)
19. *Adam Clarke's Commentary*
20. *Holy Bible* (Lamsa)
21. *Septuagint* (Rahlfs)
22. *The Septuagint--Greek and English* (Zondervan)
23. *New American Standard Bible*
24. *Young's Literal Translation*
25. *Amplified Bible*
26. *Concordant Literal Translation of the New Testament*  
(also Genesis, Isaiah, Jeremiah, Ezekiel, Daniel)
27. *Principles and Practices of Greek Exegesis* (Grassmick)
28. *Strong's Exhaustive Concordance*
29. *Young's Analytical Concordance*
30. *A Parsing Guide to the Greek New Testament* (Han)
31. *Gesenius' Hebrew Lexicon* (Tregelles)
32. *Theological Dictionary of the Old Testament* (Botterweck/Ringgren)
33. *Hebrew and English Lexicon of the Old Testament* (Brown/Driver/Briggs)
34. *A Concise Hebrew and Aramaic Lexicon of the Old Testament* (Holladay)
35. *Expository Dictionary of Old Testament Words* (Vine)
36. *Old Testament Word Studies* (Wilson)
37. *Dictionary of New Testament Theology* (Brown)
38. *Theological Dictionary of the New Testament* (Kittel)
39. *Manual Greek Lexicon of the New Testament* (Abbott-Smith)
40. *Greek-English Lexicon* (Liddell and Scott)
41. *Lexical Aids for Students of New Testament Greek* (Metzger)
42. *An Exegetical Grammar of the Greek New Testament* (Chamberlain)
43. *The Greek Elements* (Concordant)
44. *The Vocabulary of the Greek New Testament* (Moulton and Milligan)
45. *Light from the Ancient East* (Deissman)
46. *Patristic Lexicon* (Lampe)
47. *Works of Josephus* (Whiston)
48. *Greek-English Lexicon of the New Testament* (Bauer-Arndt-Gingrich)
49. *Dictionary of Old Testament Words* (Pick)
50. *Expository Dictionary of New Testament Words* (Vine)

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51. *Old Testament Synonyms* (Girdlestone)
52. *New Testament Synonyms* (Trench)
53. *A Student's Vocabulary of Biblical Hebrew* (Landes)
54. *Gesenius' Hebrew Grammar* (Kautzsch/Cowley)
55. *Manual Grammar of the Greek New Testament* (Dana and Mantey)
56. *Grammar of the Greek New Testament* (Robertson)
57. *Grammar of New Testament Greek* (Moulton)
58. *Hebrew Syntax* (Williams)
59. *Hebrew Grammar* (Davidson)
60. *Hebrew Tenses* (Driver)
61. *Greek Grammar of the New Testament* (Blass/DeBrunner)
62. *Figures of Speech Used in the Bible* (Bullinger)
63. *Idiom Book of New Testament Greek* (Moule)
64. *Macmillan Bible Atlas* (Aharoni and Avi-Yonah)
65. *Fauna and Flora of the Bible* (UBS)
66. *Bible Animals* (Wood)
67. *Wycliffe Historical Geography of the Bible* (Pfeiffer/Vos)
68. *Historical Geography of the Holy Land* (Smith)
69. *The Land of the Bible: A Historical Geography* (Aharoni)
70. *Manners and Customs of Bible Lands* (Wight)
71. *Manners and Customs of the Bible* (Freeman)
72. *Expositor's Greek Testament* (Nicol)
73. *Gill's Commentary*
74. *Bible History--Old Testament* (Edersheim)
75. *Near Eastern Religious Texts Relating to the Old Testament* (Beyerlin)
76. *The Pharisees* (Finkelstein)
77. *History of the Old Covenant* (Kurtz)
78. *Introduction to the Old Testament* (DeWette)
79. *New Testament History* (Bruce)
80. *Life and Times of Jesus the Messiah* (Edersheim)
81. *Life and Epistles of St. Paul* (Conybeare and Howson)
82. *Introduction to the New Testament* (Zahn)
83. *Outline of History* (Wells)
84. *Decline and Fall of Roman Empire* (Gibbons)
85. *Light from the Ancient Past* (Finegan)
86. *"Biblical Archaeologist"* (ASOR)
87. *Sacred Sites and Ways* (Dalman)
88. *Archaeology and the Old Testament* (Unger)
89. *Archaeology and the New Testament* (Unger)
90. *International Standard Bible Encyclopedia* (Orr)
91. *New Schaff-Herzog Encyclopedia of Religious Knowledge*
92. *Dictionary of the Bible* (Hastings)
93. *Biblico-Theological Lexicon of New Testament Greek* (Cremer)
94. *Wordsworth's Commentary*
95. *Dictionary of Bible Types* (Wilson)
96. *Preaching from the Types and Metaphors of the Bible* (Keach)
97. *Graduate Charts on Typology* (CCBC)
98. *Introduction to Biblical Hebrew* (Lambdin)



Archaeology has uncovered many examples of both Ugaritic and Phoenician on inscriptions and cuneiform tablets.

In any event, Abraham apparently adopted the Phoenician language of Palestine, perhaps for ease of trade in the area. This mixture of Phoenician with Aramaic (Eblaite?) produced the 'Hebrew' script. Subsequently diverging from the parent Phoenician, this script was used in various types of inscriptions down to the beginning of the Christian Era. With the exception, however, of the manuscript traditions of the Samaritan sect, which still employs a form of this script, the old script was replaced, especially in manuscript uses, by a cursive form of the old Aramaic script. It is this Aramaic manuscript hand which is already employed in Hebrew papyri and parchments of the second and first centuries B.C. and is attested as the normal alphabet for writing Hebrew (including the manuscripts of the Old Testament) from that time until the present.

## INTRODUCTION

### ATTITUDE

Attitude is the most important factor in Bible research. Don't let the word RESEARCH scare you. Research is the result of a desire for truth. Desire for knowledge drives one to find out for himself, the facts--that's research. Research involves charting information for easy visualization and conclusion.

It is important not to rush to get the answer. As I said, the attitude is important. Enjoy fitting the game puzzle of facts together to see what the picture is. Relax, keep the mind clear. Be confident that an answer will emerge out of the chaos of disjointed bits of data and apparent contradictions.

### PERSPECTIVE

We must handle problems in a logical, practical manner. Our minds act in terms of problem situations. If the problems are familiar, we usually react without thought in the path that we have established. The results are, therefore, often inconclusive, if not erroneous;

--or if correct, inadequate;

--or if adequate, it took longer than it should;

--or if not, it is in inappropriate form.

Critical doctrines require thorough research. The material at hand is usually inadequate. If we base our research on a light survey of a few sources, pause briefly for analysis, integration of the facts and deductive verification, a leap into the dark must be made for our final conclusion. This unsatisfactory method is very common.

We won't have time in this class to make exhaustive research, but we will attempt it on a small scale. Our objective is to learn how to undertake research with a logical plan. The completeness of a research act will depend upon the complexity of the subject, the importance of the conclusion, the type of presentation to be made, and the time allotted for the work.

In a complex research, the mind is soon overwhelmed by myriad facts and materials. To sort out the material, one must log the data in categories and correlate it later. After a rough correlation the data must be analyzed and a tentative conclusion reached. The next step is to cross examine the conclusions and analyze the results before arriving at the final decision.

### CONTENTS OF COURSE

This class will include logical rules of researching, survey of research materials, and lots of experience in researching. The real purpose is to make research a daily and useful part of the Christian life.

### METHOD OF RESEARCH

There are many methods of research. The plan selected will depend upon the nature, scope, and time limits of the subject. One plan is as follows:



## A SCIENTIFIC PLAN OF RESEARCH:

ELEMENTS OF THINKING	SAFEGUARDS
A. Research	1. Must be accurate 2. Must be extensive 3. Must be objective
B. Analysis	1. Pick out essential facts 2. Note similarities/dissimilarities 3. Note facts, problems, possibilities 4. Exceptions requiring special attention 5. Ambiguities requiring special attention 6. Figures of speech " " " " 7. Follow rules of hermeneutics
C. Judgment	1. Consider all possible solutions 2. " pros and cons 3. " total problem 4. " background of problem 5. " spiritual perspective of prob. 6. " " of Bible. 7. Pray for objectivity 8. Pray for revelation 9. Follow rules of hermeneutics 10. Reduce problem to its basic elements (for simplicity) 11. Judge certainty of proof
D. Record data, decision	1. Include steps of analysis, verification, source, and judgment for future re-eval- uation and research 2. Analytical arrangement 3. Neat 4. Permanent file (collected)

DESIRABLE RESEARCH TRAITS

One cannot change his personality and talents (although he can improve them). A survey of desirable research traits will enable one to have a better idea of the scope of research, however. It may also make one aware of his limitations and capabilities. One does not need to possess all of these traits in order to do a reasonably good job at research, however. Even if one cannot excel in the field of research, he will need to research and should know what is involved for good research results.

DESIRABLE RESEARCH TRAITS:

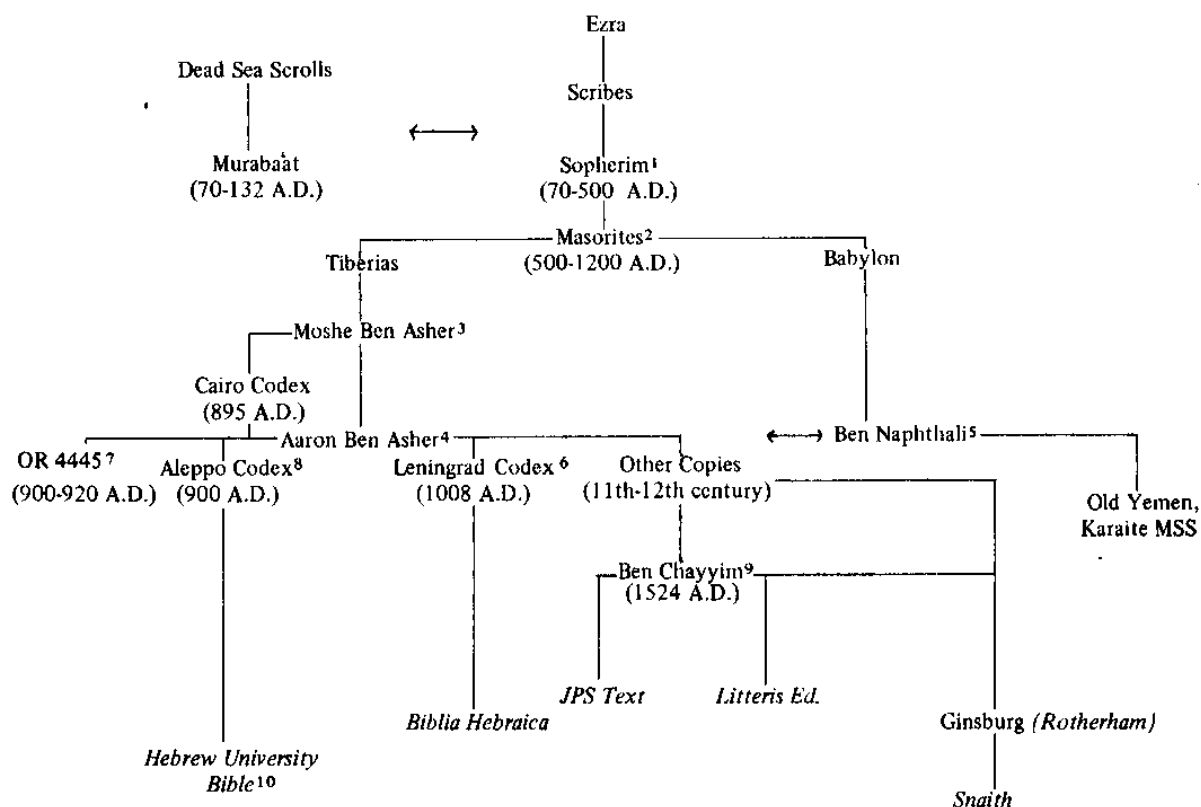
- a. Reasoning ability (logical, analytical, application)
- b. Accuracy
- c. Open mindedness (objectivity)
- d. Discernment
- e. Good memory
- f. Persistence (courage, drive, patience)
- g. Purposefulness (constructivity)
- h. Alertness (keenness of observation)
- i. Humility
- j. Spirituality
- k. Prayer
- l. Experience
- m. Intelligence
- n. Confidence
- o. Consistency
- p. Efficiency
- q. Mental energy
- r. Self-discipline
- s. Curiosity (desire for truth)
- t. Good health
- u. Good disposition
- v. Emotional stability

COMMON WEAKNESSES

- a. Adjusting theories to popular opinion
- b. " " " past teaching
- c. " " " own desires
- d. Blindness to negative facts
- e. Carelessness in observations
- f. Cowardice in supporting unpopular truth
- g. Dogmatism
- h. Egoism
- i. Emotionalism during research coloring conclusions
- j. Forming hypotheses without facts
- k. Wrong use of research tools
- l. Impatience with research procedures
- m. Inventing ingenious and interesting theories without backing
- n. Jumping to conclusions
- o. Jealous opposition to anothers theories
- p. Overconfidence in results
- q. Failure to establish weight of evidence
- r. Poor planning (disorganization of material)
- s. Ascribing too great accuracy to own data
- t. Combining and comparing data of different kinds
- u. Combining and comparing data with similar or identical titles, but with different meanings
- v. Drawing unreasonable conclusions
- w. Failure to include the maximum number of variables or possibilities
- x. Hasty reports
- y. Inadequate testing
- z. Using too general, unreliable, too condensed, biased or too little material

## COMMON WEAKNESSES (Continued)

- aa. Failure to be led by the Spirit
- ab. Forcing God's Word into man's program
- ac. Forcing God's Word into man's categorizations
- ad. Forcing God's Word into man's test theories and methods
- ae. Ignorance of work of predecessors
- af. External inconsistencies
- ag. Internal inconsistencies
- ah. False major premise
- ai. Mistaking a part for the whole
- aj. Refusing criticism
- ak. Yielding to false suggestions
- al. Argument from silence
- am. Misreading facts
- an. Substituting probability for fact
- ao. Substituting possibility for probability
- aq. Argument from analogy
- ar. Careless, vague, ambiguous use of terms
- as. Delight in fanciful interpretation
- at. Prejudice or bias
- au. Errors due to relying on memory
- av. Wrong inferences
- aw. Relying upon too few source materials
- ax. Failure to classify sources of data into families of origin
- ay. Forcing a literal interpretation on everything
- az. Forcing a spiritual application on everything
- ba. Too quickly taking the word of biased or non-spiritual authorities
- bb. Attaching pagan Greek meaning to Greek terms used by Biblical writers
- bc. Not applying rules of Greek grammar properly--must consider both the Greek as well as the spiritual impact and/or intent of the verse or passage.
- bd. Failure to examine MSS and textual evidence
- be. Failure to distinguish commentary in textual and grammatical exegesis
- bf. Lack of background data
- bg. Accepting historical data as doctrinal requirements
- bh. Failure to consider the circumstances of a text
- bi. " " " " reason for the text
- bj. " " " " age or era of the text
- bk. " " " " limitations of time of the text
- bl. " " " " " application of the text
- bm. " " " typology
- bn. " " " prophecy
- bo. " " " multiple prophecy
- bp. " " " non-chronological groupings
- bq. " " " primary meaning of Greek words before secondary meanings

TEXT OF OLD TESTAMENT

<sup>1</sup> After fall of Jerusalem, 70 A.D., scribes (called Sophrim) rallied behind Rabbi Akiba at Jaffa, and collated all MSS into one text.

<sup>2</sup> After Akiba's death (in an attempt to take back Jerusalem in 132 A.D.) Sophrim dispersed mainly to Tiberias and Babylon. Later, about 500 A.D., they gave way to Masorites, who codified their text.

<sup>3</sup> Father of Ben Asher. Scrolls converted to codices under him. Wrote text on the prophets—Cairo Codex. In Cairo today.

<sup>4</sup> Wrote Aleppo Codex (oldest complete MS of Old Testament). Result of father's effort and correspondence with Ben Naphtali.

<sup>5</sup> Differed from Ben Asher—on pronunciation chiefly—no surviving MSS, except copies of fragments.

<sup>6</sup> Early copy of Asher text, in Leningrad today.

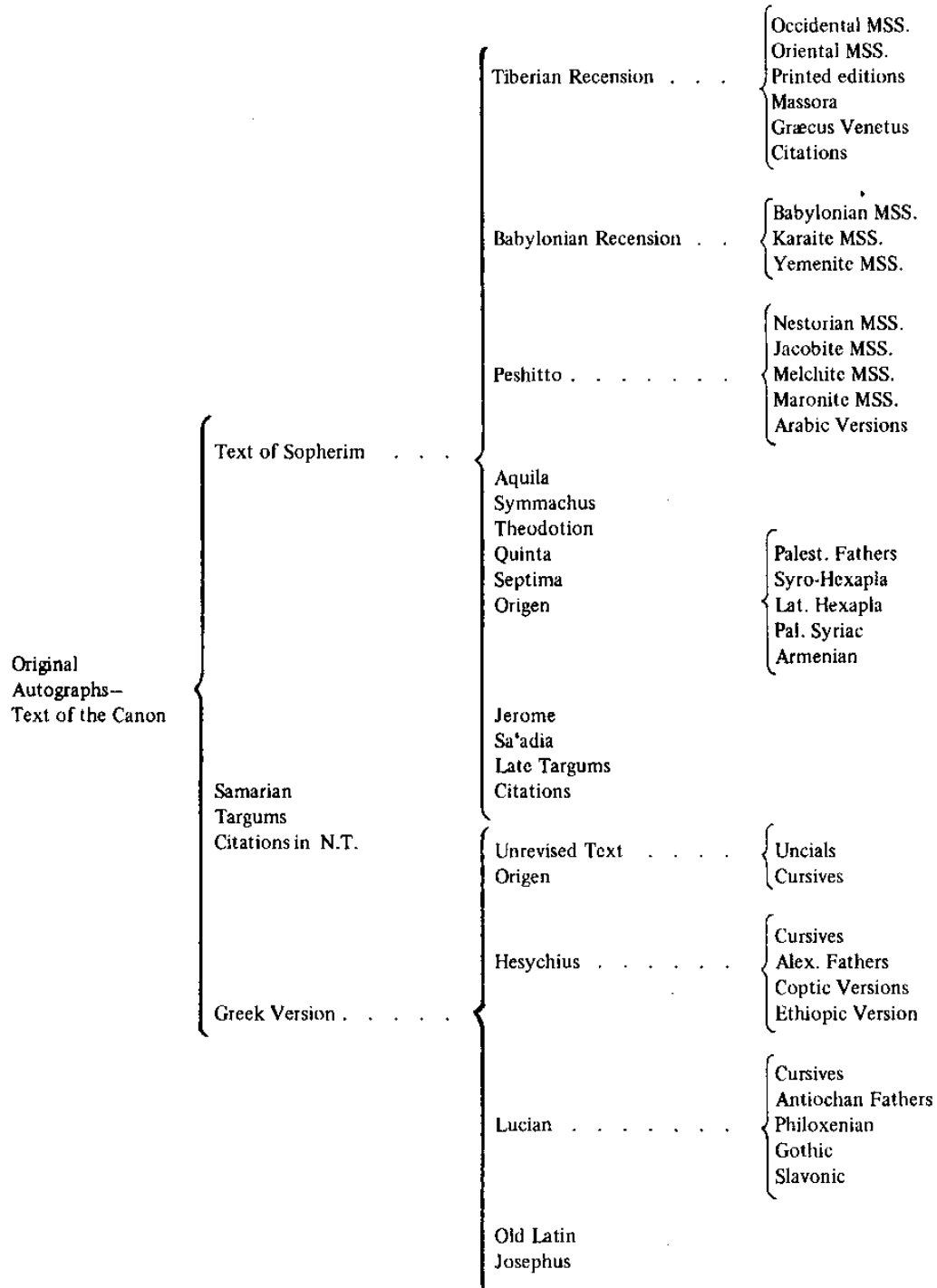
<sup>7</sup> Genesis 39:20-Deuteronomy 1:33 only; probably by Ben Asher.

<sup>8</sup> Owners of Aleppo Codex—University of Jerusalem. Over 25% of MSS destroyed by fire in Arab uprising of 1947 at Aleppo.

<sup>9</sup> Textus Receptus of King James Version.

<sup>10</sup> Published in installments since 1965.

GENEALOGY OF OLD TESTAMENT TEXT



ADVANCED THEOLOGICAL PRINCIPLES  
Mistakes in Methods of Interpretation

File 6 (BC)  
(H-BC-ATP6)

1. Fragmentary Interpretation.
  - a. Interprets as if Bible is collection of isolated verses.
2. Dogmatic Interpretation.
  - a. Uses Bible to prove dogma.
3. Rationalistic Interpretation.
  - a. Bends Scripture to man's viewpoint (human reasoning).
    1. Based on lack of faith.
    2. Often based on rebellion against truth.
4. Mythological Interpretation.
  - a. Interprets miracles as myths.
    1. Closely akin to and overlaps rational interpretation.
    2. Promoted by non-born-again, skeptical theologians, or by Christians who accept their theories.
5. Allegorical Interpretation.
  - a. Presses every detail for spiritual meaning.
  - b. Sometimes denies actual historical events and interprets history as pure allegory.
  - c. Claims the Genesis creation account is not correct, but has spiritual value.
6. Literal Interpretation.
  - a. Presses every detail into literal fulfillment.
    1. Overlooks spiritual messages and typology.
7. Typological Interpretation.
  - a. Presses everything into types.
    1. Mistakenly builds doctrine on types.
8. Systematized Interpretation.
  - a. Treats Scripture as if it were a volume of systematic theology.
9. Cross-Reference Interpretation.
  - a. Conceives Scripture as a maze of cross-references.
    1. Searches for myriads of similar passages and ties them together, independent of context.
  - b. Fails to discover individual meaning in each passage.
    1. Conclusion equals chain of Scriptures with brides of assumptions.
    2. Can never be tied down for proof—simply jumps to the next reference.
10. Encyclopedia Interpretation.
  - a. Treats the Bible as though it were exhaustive as to specific answers for every question.
    1. The Bible answers many questions by general tenor, spiritual perspective, or implication—not by providing explicit details.

(continued)

11. Literary Interpretation.

- a. Forgets that Bible is truth with a purpose and that its literary qualities are secondary.

12. Interpretation by Revelation.

- a. Assumes all ideas are revelation of the Holy Spirit.
- b. Assumes that revelation negates the need for hermeneutics.
- c. Assumes that revelation and hermeneutics are opposed.

13. Scholastic Interpretation.

- a. One's theology becomes a result of myriads of quotations and ideas of scholars.
- b. Looks to books for all answers (accepts prestigious scholars' opinions as authoritative).

ADVANCED THEOLOGICAL PRINCIPLES  
Quiz: Symbolic Logic

File 9 (BC) R8711  
(H-BC-ATP9)

Name \_\_\_\_\_

Date \_\_\_\_\_

Corrector \_\_\_\_\_

100 points total

1. How many lines would be required on a truth table for an argument with seven variables? (3 pts.)
2. Use truth tables to show whether the following arguments are valid or invalid. Show your work. (8 pts. each)

a.  $(p \vee q) \supset (p \cdot q)$   
 $\therefore (p \supset q) \cdot (q \supset p)$

b.  $p \supset (q \cdot r)$   
 $(q \vee r) \supset \sim p$   
 $\therefore \sim p$

3. Use truth tables to tell whether the following statements are tautologous, self-contradictory, or contingent. Show your work. (8 pts. each)

a.  $(p \supset p) \supset (q \cdot \sim q)$

b.  $[p \supset (q \supset r)] \supset [(p \supset q) \supset (p \supset r)]$

c.  $p \not\equiv [p \vee (q \cdot \sim q)]$

4. Using the 19 Rules for Inference, construct a proof for the following valid arguments, stating the justification for each line that is not a premise. (10 pts. each)

a. C  
 $\therefore D \supset C$

b.  $(P \supset Q) \cdot (P \vee R)$   
 $(R \supset S) \cdot (R \vee P)$   
 $\therefore Q \vee S$

(continued)



5. Using the method of assignment of truth values, prove the invalidity of the following argument. That is, what truth values assigned to I, J, K, and L will make the premises all true and the conclusion false?  
(5 pts.)

$I \vee \sim J$   
 $\sim(\sim K \cdot L)$   
 $\sim(\sim I \cdot \sim L)$   
 $\therefore \sim J \supset K$

6. Translate the following arguments into symbolic language and prove them valid using the Rules of Inference, stating the justification for each line that is not a premise. (15 pts. each)
- a. If there is no resurrection, then Christ is not risen. If Christ is not risen, then your faith is in vain and you are yet in your sins. But if Christ is risen, then your faith is not in vain and you are no longer in your sins. Christ is risen. Therefore, there is a resurrection, and your faith is neither in vain nor are you any longer in your sins.
- b. If God is a trinity, then God is three persons. If God is three persons, He is not one person. If God is not one person, then either He is more than one person or He does not exist. God does exist. If God is more than one person, then plural pronouns must be used to refer to Him. Plural pronouns are not used to refer to God. Therefore, God is not a trinity.

OUTLINE OF THE INDUCTIVE METHOD

- I. Basic definition and description of the method.
  - A. Examines details and draws conclusions of general perspectives.
  - B. Follows scientific steps in approach.
    1. Observe details to be studied.
    2. Interpretation and explanation follows.
    3. Application of conclusions and general perspectives is then made.
    4. Effective communication is final step.
  - C. Method is analytical in character.
    1. We analyze and evaluate data found step by step.
    2. Logically we build upon the specific(s) that we began with.
  - D. Seek to find purpose of Bible authors.
    1. What they had to say.
    2. Recognize what they meant.
    3. Reveal their relevant points.
- II. Aims and procedures of the method.
  - A. Exposition and emphasis of a principal truth: bring explanation to the specific(s) dealt with in study.
    1. Identify key words and thoughts.
      - a. The primary vs. the subordinate.
      - b. The obvious vs. the latent.
    2. Recognize manner in which presented by Biblical writer.
      - a. History and surroundings of time covered.
      - b. Characters and their involvement.
      - c. Miracles-the part played by the unexpected or unnatural.
      - d. Grammatical structure and laws of composition used to convey message.
    3. Contexts where the principle lines of thought are observed.
      - a. Entire book (Gen., Exodus, etc.) or large divisions (Jer. 1-15; Isa. 60-66, etc.)
      - b. Smaller segments (Jn. 1:1-18) or paragraphs.
      - c. Single verse (John 3:16).
      - d. Key words (love, grace, mercy).
  - B. God's Word contains messages to real situations.
    1. Various situations existed; God inspired men to write to the needs. These must be recognized.
      - a. Need for factual information.
      - b. Need for correction and warning.
      - c. Need for encouragement and edification.
      - d. Need for doctrine.
    2. Note its application throughout the centuries.
    3. Various forms of literature are used in order to present the truth. This must be recognized in study and research.
      - a. Different figures of speech.
        - (1) Antithesis
        - (2) Metaphor
        - (3) Simile
        - (4) Climax
        - (5) Hyperbole, etc.
      - b. Kind of terms
        - (1) Strong and routine
        - (2) Literal and figurative
      - c. Kinds of literature
        - (1) Wisdom literature-Proverbs
        - (2) Parabolic-parables
        - (3) Apocalyptic-prophecy, (Rev.)

In all Bible studies, you use induction, deduction, or a combination of both. For example, you have a general idea what the answer is (deductive), but you still examine all the evidence, remaining open to new conclusions (inductive). You can apply these methods to research all or part of the Bible: a word, a phrase, a verse, a paragraph, a chapter, a book, or the entire Bible. You need to strike a balance between close investigation and general survey. You can approach the following methods either inductively or deductively. Some of these areas overlap.

1. Inductive Method
  - Examines details and draws conclusions of general perspectives.
  - Follows scientific steps in approach.
  - Is analytical in nature.
  - Seeks to find the purpose of the Bible authors.
2. Deductive Method
  - Starts with opinion or conclusion.
  - Observes facts to prove or disprove.
3. Apologetical Method
  - Apologetics is the defense of the Christian faith and doctrines.
  - Involves areas like inspiration, historicity, authenticity of Scripture, the virgin birth, and the resurrection of Christ.
4. Biographical Method
  - Studies the lives of Bible characters.
  - Is generally used for devotional purposes but can also have doctrinal and homiletical applications.
5. Comparative Method
  - Compares New Testament fulfillment of Old Testament prophecies.
  - Compares Old Testament "quotations" in New Testament.
6. Cultural Method
  - Culture generally consists of religion, science, music, art, literature, and language.
  - Studies the culture (in whole or part) of Israel (or surrounding nations) to have background for Biblical interpretation or for homiletical, practical, or other purposes.
7. Devotional Method
  - Studies with a view to personal edification.
  - Is not confined to reading the Psalms; any portion of the Scripture can be studied devotionally.
8. Dispensational Method
  - Studies how God dealt with man during various periods or ages.
  - Certain groups have abused this and see many dispensations.
  - Most would agree to a minimum of four dispensations (Innocence, Law, Church, Millennium) up to possibly eight dispensations.
  - Some make "covenant" synonymous with "dispensation" and thus study covenants.

(continued)

9. Doctrinal Method (or Theological Method)
  - Studies the doctrines of the Bible.
  - Can be done topically (grace, Rapture, sin, judgment) or book by book.
10. Exegetical Method
  - The critical interpretation of Scripture in the original language.
  - The goal is determining the meaning of a given text.
11. Expositional Method
  - Exposition is the proclaiming of the meaning of the Scripture (often from the English text) and its application to modern man.
  - Good exposition presupposes sound exegesis.
12. Geographical Method
  - Studies the land (its location, size, elevation, natural resources, rainfall, soil, political and natural barriers); cities and their location; bodies of water; and the location and relationship of the people to the land.
  - The main purpose usually is to determine the effect of geography on the people and history (e.g., economy, wars, outlook on life).
13. Grammatical Method
  - Studies the grammatical construction of the original languages.
  - Is usually not an end in itself, but an underlying part of exegesis.
14. Historical Method
  - Studies the history of the Bible.
  - Examines the cause and effect in history and draws principles.
15. Homiletical Method
  - Studies the Bible with a view to writing and preaching sermons.
16. Lexical Method (or Philological Method)
  - Studies the meaning of words in the original languages.
  - Usually forms a part of exegesis.
17. Messianic Method (Christo-centric Method)
  - Focuses on Scriptures that relate to Christ.
  - Includes Old Testament prophecies, types, etc., as well as New Testament doctrines and Gospel records.
18. Numerological Method
  - Studies the numbers used in Scripture.
  - This area has been abused on occasion and totally neglected on other occasions.

(continued)

## 19. Philosophical Method

- This method does not refer to man's effort to solve the problems of the universe by means of human reason, apart from the revelation of God.
- Examines what the Bible has to say about the fundamental issues of life: the existence and nature of God, the ultimate reality and reason for things, the nature of knowledge, ethics (principles of right and wrong), the pattern of history, the goal of history, politics (whether a state possesses sovereign power over the wills of its subjects).

## 20. Practical Method

- Studies Scripture for practical application of its principles to modern man.
- Is similar to the devotional method but leans more on ethical considerations.

## 21. Scientific Method

- Studies the Bible from the standpoint of physical science. The Bible is not a science textbook, but it makes statements about science.
- Includes zoology (animal kingdom), botany (plant kingdom), and mineralogy.

## 22. Sociological Method

- Sociology is the scientific study of society.
- Includes areas such as the family, child-rearing, community relationships, government, communication, transportation, goods, property, production, and race.

## 23. Survey Method

- Studies the overall scope of a chapter or a book of the Bible.
- Is sometimes called the "systematic method" as opposed to the "analytic method" (verse analysis) or the "outline method."

## 24. Systematic Method

- Attempts to categorize and systematize Bible doctrines.
- Writers of systematic theologies include Finney, Hodge, Thiessen, and Strong.

## 25. Textual Method

- Studies Bible manuscripts, texts, and translations.
- Is not an end in itself but is a part of proper exegesis.

## 26. Topical Method

- Traces a topic as it is mentioned through Scripture.

## 27. Typological Method

- Studies the types in the Bible.
- Is similar to devotional, practical, and Messianic methods.

A. ELEMENTARY VALID ARGUMENTS.

- |  |   |
|--|---|
| 1. Modus Ponens (M.P.)<br>$p \supset q$<br>$p$<br>$\therefore q$   | 2. Modus Tollens (M.T.)<br>$p \supset q$<br>$\sim q$<br>$\therefore \sim p$ |
| 3. Hypothetical Syllogism (H.S.)<br>$p \supset q$<br>$q \supset r$<br>$\therefore p \supset r$               | 4. Disjunctive Syllogism (D.S.)<br>$p \vee q$<br>$\sim p$<br>$\therefore q$ |
| 5. Constructive Dilemma (C.D.)<br>$(p \supset q) \cdot (r \supset s)$<br>$p \vee r$<br>$\therefore q \vee s$ | 6. Absorption (Abs.)<br>$p \supset q$<br>$\therefore p \supset (p \cdot q)$ |
| 7. Simplification (Simp.)<br>$p \cdot q$<br>$\therefore p$   | 8. Conjunction (Conj.)<br>$p$<br>$q$<br>$\therefore p \cdot q$              |
| 9. Addition (Add.)<br>$p$<br>$\therefore p \vee q$   |   |

B. RULES OF REPLACEMENT.

Any of the following logically equivalent expressions can replace each other wherever they occur:

- |                                    |   |
|------------------------------------|---|
| 10. De Morgan's Theorems (De. M.): | $\sim(p \cdot q) \equiv (\sim p \vee \sim q)$<br>$\sim(p \vee q) \equiv (\sim p \cdot \sim q)$                              |
| 11. Commutation (Com.):            | $(p \vee q) \equiv (q \vee p)$<br>$(p \cdot q) \equiv (q \cdot p)$  |
| 12. Association (Assoc.):          | $[p \vee (q \vee r)] \equiv [(p \vee q) \vee r]$<br>$[p \cdot (q \cdot r)] \equiv [(p \cdot q) \cdot r]$                    |
| 13. Distribution (Dist.):          | $[p \cdot (q \vee r)] \equiv [(p \cdot q) \vee (p \cdot r)]$<br>$[p \vee (q \cdot r)] \equiv [(p \vee q) \cdot (p \vee r)]$ |
| 14. Double Negation (D.N.):        | $p \equiv \sim\sim p$   |
| 15. Transposition (Trans.):        | $(p \supset q) \equiv (\sim q \supset \sim p)$  |
| 16. Material Implication (Impl.):  | $(p \supset q) \equiv (\sim p \vee q)$  |
| 17. Material Equivalence (Equiv.): | $(p \equiv q) \equiv [p \supset q] \cdot [q \supset p]$<br>$(p \equiv q) \equiv [(p \cdot q) \vee (\sim p \cdot \sim q)]$   |
| 18. Exportation (Exp.):            | $[(p \cdot q) \supset r] \equiv [p \supset (q \supset r)]$  |
| 19. Tautology (Taut.):             | $p \equiv (p \vee p)$<br>$p \equiv (p \cdot p)$   |

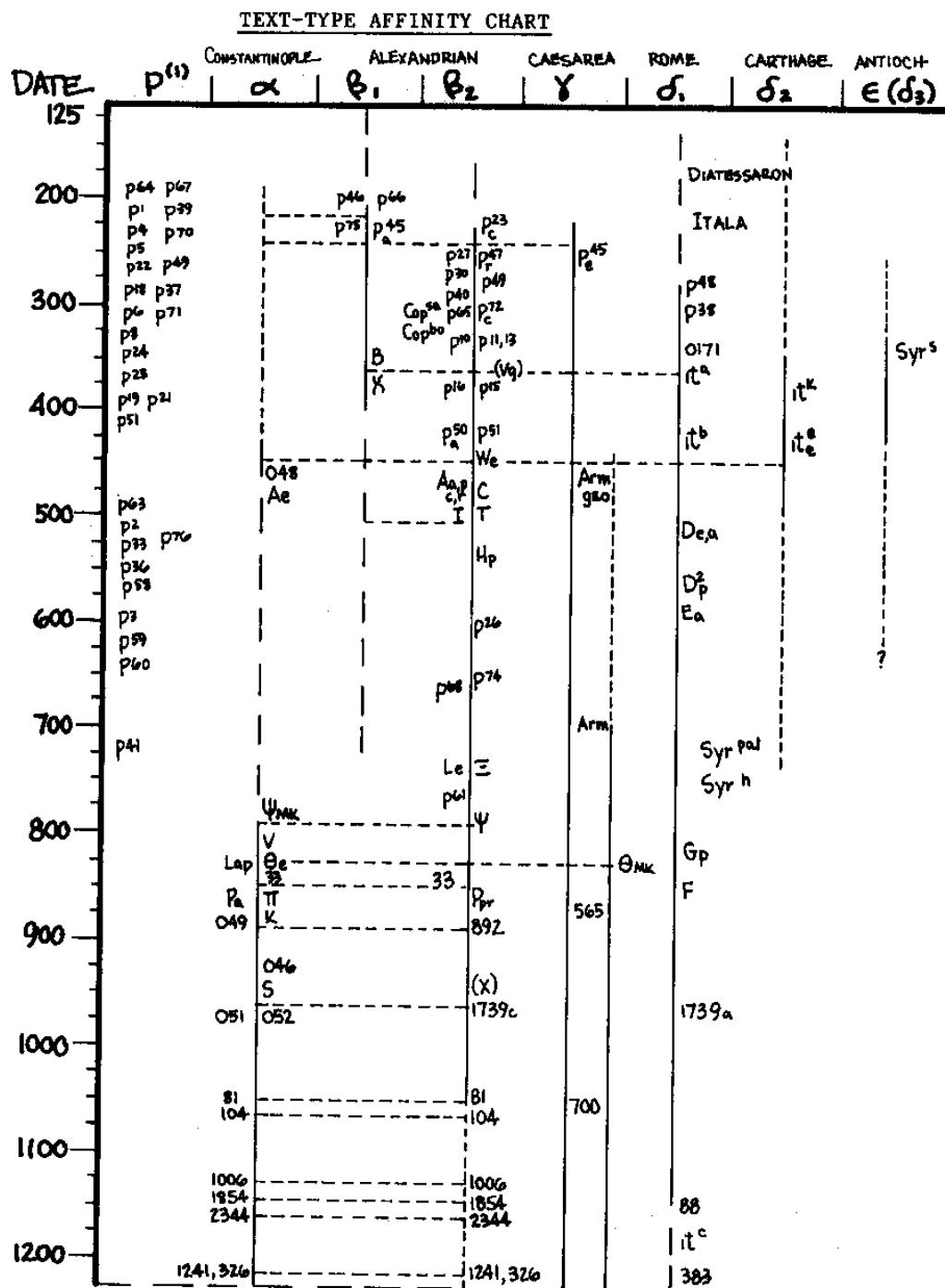
External Evidence

1. The older reading is to be preferred.
2. The reading with best geographical support is to be preferred.
3. Genealogical evidence - historical descent.
4. Respectability of witnesses (weight of witnesses).
5. Continuity or unbroken stream of transmission/tradition.
6. Consent of witnesses (number of witnesses) - majority text.

Internal Evidence

1. The shorter reading is preferred in certain contexts.
2. The longer reading is preferred in certain contexts.
3. The more difficult reading is preferable.
4. The reading best explaining the origin of other readings is preferred.
5. The reading which disagrees superficially with parallel passages is preferred.
6. The reading which does not bear the obvious earmarks of stylistic or other improvement is preferred.
7. The reading reflecting the least doctrinal bias, or that maximizes typological/exegetical applications is preferred.
8. The reading that best conforms to the general tenor of Scripture is preferred.
9. The reading that best suits the immediate context after all other criteria are considered, is preferred.
10. The reading that best suits the author's characteristic style, vocabulary, and usage is preferred.
11. Internal considerations of reasonableness, grammar, logic, geography or scientific impossibility may favor one reading over another.
12. Evidence of the entire passage or context, i.e., of individual manuscripts in the contextual region associated with the variant in question.
13. Quality of witness is better than quantity (evidence should be weighed not counted).

Text-type Affinity Chart / Abbreviations Used in Uncial Manuscripts



(1) Papyri that are unclassified as to textual affinity or mixed.  
 ————— RELATIVELY CERTAIN TEXT-TYPE HISTORY  
 - - - - - PROBABLE TEXT-TYPE HISTORY OR MIXING  
 . . . . . POSSIBLE TEXT-TYPE HISTORY OR MIXING  
 ( ) MIXED TEXT

**SUBSCRIPT NOTATION**  
 e = Gospels  
 a = Acts  
 p = Pauline Epistles  
 c = Catholic Epistles  
 r = Revelation

(continued)



ABBREVIATIONS USED IN UNCIAL MANUSCRIPTS

CONTRACTED FORM	UNCIAL WORD	MINUSCULE FORM	TRANSLATION
$\overline{\Theta\varsigma}$	$\Theta\epsilon\omicron\varsigma$	$\theta\epsilon\omicron\varsigma$	GOD
$\overline{\text{K}\varsigma}$	$\text{K}\Upsilon\text{P}\iota\omicron\varsigma$	$\kappa\upsilon\rho\iota\omicron\varsigma$	LORD
$\overline{\Upsilon\varsigma}$	$\Upsilon\iota\omicron\varsigma$	$\upsilon\iota\omicron\varsigma$	SON
$\overline{\text{I}\varsigma}$	$\text{I}\text{H}\text{C}\omicron\Upsilon\varsigma$	$\text{I}\eta\varsigma\omicron\upsilon\varsigma$	JESUS
$\overline{\text{X}\varsigma}$	$\text{X}\rho\iota\varsigma\tau\omicron\varsigma$	$\chi\rho\iota\varsigma\tau\omicron\varsigma$	CHRIST
$\overline{\text{ΠΜΑ}}$	$\text{Π}\text{N}\epsilon\Upsilon\text{M}\Delta$	$\pi\nu\epsilon\upsilon\mu\alpha$	SPIRIT
$\overline{\text{C}\tau\varsigma}$	$\text{C}\tau\alpha\Upsilon\rho\omicron\varsigma$	$\sigma\tau\alpha\upsilon\rho\omicron\varsigma$	CROSS
$\overline{\text{ΠΑΡ}}$	$\text{Π}\alpha\tau\eta\rho$	$\pi\alpha\tau\eta\rho$	FATHER
$\overline{\text{ΜΗΡ}}$	$\text{M}\eta\tau\eta\rho$	$\mu\eta\tau\eta\rho$	MOTHER
$\overline{\text{C}\eta\rho}$	$\text{C}\omega\tau\eta\rho$	$\sigma\omega\tau\eta\rho$	SAVIOR
$\overline{\Delta\text{NOC}}$	$\Delta\text{N}\theta\epsilon\rho\eta\tau\omicron\varsigma$	$\alpha\text{ν}\theta\rho\omega\pi\omicron\varsigma$	MAN
$\overline{\text{OYNOC}}$	$\text{O}\Upsilon\rho\Delta\text{NOC}$	$\omicron\upsilon\rho\alpha\upsilon\omicron\varsigma$	HEAVEN
$\overline{\Delta\Delta\Delta}$	$\Delta\Delta\Upsilon\text{I}\Delta$	$\delta\alpha\upsilon\iota\delta$	DAVID
$\overline{\text{I}\text{H}\Lambda}$	$\text{I}\text{C}\rho\Delta\text{H}\Lambda$	$\text{I}\sigma\rho\alpha\eta\lambda$	ISRAEL
$\overline{\text{I}\Lambda\text{H}\text{M}}$	$\text{I}\epsilon\rho\omicron\Upsilon\text{C}\Delta\text{L}\text{H}\text{M}$	$\text{I}\epsilon\rho\omicron\upsilon\sigma\alpha\lambda\eta\mu$	JERUSALEM

Letters that might be confused in uncial MSS \*

<u>UNCIAL</u>	<u>MINUSCULE</u>	<u>TRANSLITERATION</u>
$\Delta\Delta\Lambda$	$\alpha\delta\lambda$	adl
$\text{C}\epsilon\theta\omicron$	$\sigma\epsilon\theta\omicron$	seth o
$\Gamma\text{Π}\text{T}\text{I}\text{T}\Gamma\text{I}$	$\delta\pi\tau\iota\gamma\lambda$	gptitgi

\*due to faded ink, misreading, poor manuscript condition

ADVANCED THEOLOGICAL PRINCIPLES  
Quiz #1

File 15 (BC)  
(H-BC-ATP15)

Name \_\_\_\_\_  
100 Points Total

1. (3 pts.) Which "or" does a disjunction symbol represent, the exclusive or inclusive?  
\_\_\_\_\_
2. (6 pts. total; 3 pts. each) In the expression,  $p \supset q$ , which term is the antecedent?  
What is the other term called? \_\_\_\_\_
3. (10 pts. total; 1 wrong, -1; 2 wrong, -4; 3 wrong, -6; 4 wrong - 8; 5 or more wrong, -10)  
 $p \supset q$  is the symbolic logic translation of which of the following statements? (Check all that apply.)

<input type="checkbox"/> a. q implies p	<input type="checkbox"/> f. q is a necessary cond. for p
<input type="checkbox"/> b. p is a sufficient cond. for q	<input type="checkbox"/> g. q is a sufficient cond. for p
<input type="checkbox"/> c. p is a necessary cond. for q	<input type="checkbox"/> h. if p, then q
<input type="checkbox"/> d. p only if q	<input type="checkbox"/> i. q is implied by p
<input type="checkbox"/> e. p implies q	<input type="checkbox"/> j. q only if p
4. (16 pts. total; 8 pts. each) Translate the following statements into symbolic logic, using capital letters for each simple statement. Assume inclusive "or," always use the negation symbol where indicated, and don't perform transformations on the statements, just translate them as they are.
  - a. If either Peter preaches or John preaches then there will be both converts and a riot in the city.
  - b. If evolution is true, then Jesus was either a liar or deceived, and the Bible is both inaccurate and uninspired.
5. (20 pts. total; 10 pts. each) Using truth tables, prove whether the following arguments are valid or invalid.
  - a.  $(p \vee q) \supset (p \cdot q)$   
 $\sim(p \vee q)$   
 $\therefore \sim(p \cdot q)$
  - b.  $p \supset (q \supset r)$   
 $p \supset q$   
 $\therefore p \supset r$

(continued)

6. (45 pts. total; 15 pts. each) Translate the following into symbolic logic form as in (4) above, and prove them valid or invalid using truth tables as in (5) above. Show your work.
  - a. If God is dead, then there are no miracles today and we have no hope. But there are miracles today. Therefore, God is not dead.
  - b. If you want eternal life, you must either keep the law perfectly, or accept Christ. You have not kept the law perfectly. Therefore, if you want eternal life, you must accept Christ.
  - c. If Calvinism is true, then if God loves us, we can never backslide. God truly loves us. Therefore, if we can never backslide, then Calvinism is true.

Reemphasis of Types - review your hermeneutics handout on types (file 7).

- 1) Types abound in Scripture.
- 2) They point to the greater fulfillment:
  - A. Tabernacle represents, points to Christ.
  - B. David represents, points to Christ.
  - C. Solomon represents, points to Christ.
  - D. Shulamite represents, points to something greater: the bride of Christ.
- 3) Types are not doctrine; neither do they prove doctrine.
  - A. The doctrine must be first established before types can be used and found properly.
  - B. Facts can be established with a high degree of probability between types and antitypes.
    1. Christ was 33 & 1/2 at death; Isaac was probably the same age when offered by Abraham.
    2. Christ was the Lamb of God (John 1:29); skins made by Yahweh for Adam and Eve (Genesis 3:21) were of lamb and served as their covering for sin.
    3. Doctrinal truths of New Testament help us to understand how certain things were done in the Tabernacle, e.g., its floor plan.
- 4) Basically, the New Testament sets forth doctrines; the Old Testament echoes them in typology.
  - A. New Testament truths cast their shadow in the Old Testament.
    1. Colossians 2:16-17.
  - B. The shadow, in turn, points back to revealed truth.
- 5) Types are not perfect or complete in themselves.
  - A. Abraham and Isaac - the son did not die.
  - B. Jonah in the whale - did not die.
- 6) Not every possible connection is a type (some parallels have no moral or spiritual significance - they are only coincidence).
- 7) The antitype is on a higher plane; it is the actual person, place, event, etc.
- 8) The antitype is never opposite in quality from the type.
  - A. A pig is never used to represent Christ.
  - B. The brazen serpent does not represent Christ.
- 9) The word "antitype" (*ἀντίτυπος*) is in 1 Pe. 3:21. This is saying that water baptism is the antitype of the type which is recorded in verse 20, i.e., Noah and the ark being brought safely through the water.
  - A. This word is also used in Heb. 9:24. KJV translates it "figures."
    1. NAS: "copy."
    2. Rotherham: "counterpart."
    3. "Here it is the 'counterpart of reality' (Moffatt). Moses was shown a tupos (model) of the heavenly realities and he made an antitupon on that model, 'answering to the type' (Dods) or model" ATR, vl. 5, p. 403.
- 10) "Antitype is from *ἀντί*, over against, and *τύπος*, a blow. Hence, originally, repelling a blow: a blow against a blow; a counter blow. So of an echo, or of the reflection of light; then a correspondence, as of a stamp to the die." Vincent, vol. 1, p. 657.

(continued)

- 11) Types can have more than one meaning.
  - A. Elisha equals Christ and saints.
- 12) Types are historical facts or real events or real persons or real places that point to a greater truth.
- 13) Types are not absolutes; they can only be proven in limited cases (as when the New Testament says that something was a type, or that something represented something else.
  - A. 1 Cor. 10:4 - Christ equals Rock.
  - B. 1 Cor. 5:7 - Christ equals Passover Lamb (John 1:29).
- 14) Types add an extra level of meaning to the Word, but a type is only a type in the eye of the beholder. If you can accept a type, do; if not, fine; but do be open both to doctrinal truth and to all the ways God uses to convey it. Realize that God wrote the Book knowing the end from the beginning.
- 15) New Testament references using TUPOS:
  - A. John 20:25 - "print" twice.
  - B. Acts 7:43 - "figures."
  - C. Acts 7:44 - "fashion."
  - D. Acts 23:25 - "manner."
  - E. Romans 5:14 - "figure."
  - F. Romans 6:17 - "form."
  - G. 1 Cor. 10:6 - "ensamples."
  - H. 1 Cor. 10:11 - "ensamples."
  - I. Php. 3:17 - "ensample."
  - J. 1 The. 1:7 - "ensamples."
  - K. 2 The. 3:9 - "ensamples."
  - L. 1 Tim. 4:12 - "example."
  - M. Titus 2:7 - "pattern."
  - N. Heb. 8:5 - "pattern."
  - O. 1 Pe. 5:3 - "ensamples."
- 16) Incorrect definitions of types:
  - A. Types are fanciful allegorizations by imaginative men.
  - B. Types exist only where the New Testament explicitly says they do.
  - C. Types are only an ancillary feature of the Bible; they have little significance.
  - D. Read Monser, p. ix, "TYPES." Types are made into something "special" and "holy," and if one sees too many of them, he commits some gross error. See Monser, p. 26, 27.
  - E. Types have only one application - to Christ, heaven, victory, etc.; more than one application is stretching God's Word.
- 18) Note: Man tries to limit God and His Word. Types do have boundaries and we must be careful, but let's not remove the foreshadowing of truth from God's plan and purpose. God sees the beginning and the end in one view—types allow us to better understand this omniscience of God.
  - A. Those in the Old Testament were living their lives just as you and I are. They did not see themselves as living out the shadows of the New Testament. God recorded key aspects of their "free will" lives to depict some marvelous things for our learning and admonition.
  - B. They probably realized in certain instances that what they were doing was pointing to something yet unseen (e.g., in the sacrifices in the Temple), but this can't be proved.
- 19) Types, in a certain sense, are a form of prophecy which can only be discerned as the light of the New Testament burns brightly in our hearts.

- A. Translating word problems to argument forms and testing their validity.
1. If AT&T manages to free itself from Rockefeller's influence, then both IBM and CDC will adopt more liberal corporate policies. But IBM will not adopt a more liberal policy; therefore, AT&T will not manage to free itself from Rockefeller's influence.
  2. If Greece strengthens her democratic institutions, then Hungary will pursue a more independent policy. If Greece strengthens her democratic institutions, the Italian communist party will attract fewer and fewer voters. Hence, if Hungary pursues a more independent policy, then the Italian communist party will attract fewer and fewer voters.
  3. If Montana suffers a severe drought, then if Nevada has its normal light rainfall, then Oregon's water supply will be greatly reduced. Nevada does have its normal light rainfall. So, if Oregon's water supply is greatly reduced, then Montana suffers a severe drought.
- B. Tautologous, self-contradictory, contingent statements: proving validity with truth tables.
1.  $p \supset [\sim p \supset (q \vee \sim q)]$
  2.  $p \supset [p \supset (q \cdot \sim q)]$
- C. Tautologous bi-conditionals: proving validity with truth tables.
1.  $(p \supset q) \equiv (\sim q \supset \sim p)$
  2.  $p \equiv [p \cdot (p \vee q)]$
  3.  $(p \supset q) \equiv [(p \vee q) \equiv q]$
  4.  $[p \cdot (q \vee r)] \equiv [(p \cdot q) \vee (p \cdot r)]$

Logic exercises part D: Proving validity/invalidity with truth tables.

A. Translating word problems to argument forms and testing validity.

1. If AT&T manages to free itself from Rockefeller's influence, then both IBM and CDC will adopt more liberal corporate policies. But IBM will not adopt a more liberal policy, therefore AT&T will not manage to free itself from Rockefeller's influence.
2. If Greece strengthens her democratic institutions then Hungary will pursue a more independent policy. If Greece strengthens her democratic institutions the Italian communist party will attract fewer and fewer voters. Hence, if Hungary pursues a more independent policy then the Italian communist party will attract fewer and fewer voters.
3. If Montana suffers a severe drought then if Nevada has its normal light rainfall then Oregon's water supply will be greatly reduced. Nevada does have its normal light rainfall. So if Oregon's water supply is greatly reduced then Montana suffers a severe drought.

B. Tautologous, self-contradictory, contingent statements: proving validity with truth tables.

1.  $p \supset [\neg p \supset (q \vee \neg q)]$
2.  $p \supset [p \supset (q \wedge \neg q)]$

C. Tautologous bi-conditionals: proving validity with truth tables.

1.  $(p \supset q) \equiv (\neg q \supset \neg p)$
2.  $p \equiv [p \wedge (p \vee q)]$
3.  $(p \supset q) \equiv [(p \vee q) \equiv q]$
4.  $[p \wedge (q \vee r)] \equiv [(p \wedge q) \vee (p \wedge r)]$

On a certain train, the crew consists of the brakeman, the fireman, and the engineer. Their names, listed alphabetically, are Jones, Robinson, and Smith. On the train are also three passengers with corresponding names Mr. Jones, Mr. Robinson, and Mr. Smith. The following facts are known:

1. Mr. Robinson lives in Detroit.
2. The brakeman lives halfway between Detroit and Chicago.
3. Mr. Jones earns exactly \$20,000 a year.
4. Smith once beat the fireman at billiards.
5. The brakeman's next door neighbor, one of the three passengers previously mentioned, earns exactly three times as much as the brakeman.
6. The passenger living in Chicago has the same name as the brakeman.

Therefore, what is the engineer's name?

Approach:

1. Assignment of symbols for statements: This will include assigning symbols to statements not made but either assumed or logically deducible from the stated facts. (See W, H, P below.)
2. Analysis of the problem: This will involve determining from the given statements what we don't know but need to know in order to answer the concluding question.
3. Development of the argument form and analysis of individual parts to determine intermediate answers that will lead us to the final conclusion.

1. Assignment of symbols for statements:

From fact

- 1 D - Mr. Robinson lives in Detroit.
- 2 W - Mr. Smith lives halfway between Detroit and Chicago.
- 2 H - Mr. Robinson lives halfway between Detroit and Chicago.
- 2 P - Mr. Jones lives halfway between Detroit and Chicago.
- 3 E - Mr. Jones's annual earnings are exactly divisible by 3.
- 3 T - \$20,000 is exactly divisible by 3.
- 4 O - Smith once beat the fireman at billiards.
- 5 S - Mr. Smith is the brakeman's next door neighbor.
- 5 R - Mr. Robinson is the brakeman's next door neighbor.
- 5 J - Mr. Jones is the brakeman's next door neighbor.
- 6 C - Mr. Jones lives in Chicago.
- 6 I - Mr. Robinson lives in Chicago.
- 6 L - Mr. Smith lives in Chicago.

Other statements that may be useful:

- |                               |                               |
|-------------------------------|-------------------------------|
| M - Smith is the fireman.     | B - Jones is the brakeman.    |
| N - Jones is the fireman.     | A - Smith is the brakeman.    |
| F - Robinson is the fireman.  | Q - Robinson is the brakeman. |
| G - Smith is the engineer.    |                               |
| U - Jones is the engineer.    |                               |
| V - Robinson is the engineer. |                               |

2. Analysis:

This section and section 3 are left to you with the following hints: Nothing is said of the engineer, so it is reasonable to assume that we are several steps from knowing who he is. Also, if we can find out who isn't the engineer by determining the brakeman or the fireman or both, then the engineer's name will follow.



The Hebrew verb is found in two tenses and each of these tenses occurs in seven major conjugations. Certain other verbs occur in a few other relatively rare conjugations.

### Verb Tenses

Perfect - The perfect's range of meaning in order of frequency is as follows:

1. Simple past - This is the normal and most frequent usage.
2. General present - For verbs of perception or attitude, e.g., "I know" or "I love."
3. Stative - For verbs showing a state of being, rendered with helping verbs in English, e.g., "I am old" or "I have become old."
4. Habitual activity - This usage is found almost exclusively in poetical sections of Scripture; they have no specific tense value, e.g., "I write."

Imperfect - The imperfect's range of meaning in order of frequency:

1. Future - The most common usage.
2. Habitual or customary action - The tense is not specific, rather it is gained contextually, e.g., "He writes" or "He used to write" (as a matter of custom) or "He will write."
3. Modal - This is similar to the subjunctive or optative in Greek. It is the mode of probability/possibility and is rendered in English with helping verbs or modifiers such as may, might, should, could.

### Conjugations of Tenses (also called "derived verb forms")

1. Qal - This is the normal or root form (generally). This form is the basis for the other six major conjugations and the other more obscure conjugations.
2. Niphal - Medio-passive in nature, having the following possible translation values:
  - a. Incomplete passive - Here the agent is not in view, e.g., "The lesson was read"; the normal passive would add "by the students," i.e., the agent.
  - b. Middle - In the middle, the object of the active verb becomes the subject of the middle verb, e.g., "He broke the window" (active), "The window broke" (middle).
  - c. Reflexive - e.g., "He was redeemed" (passive), "He redeemed" (active), "He redeemed himself" (reflexive).
  - d. Resultative - There is a rather difficult nuance to this conjugation. It may have the idea of potentiality, e.g. "To eat" (active), "To be eaten" (passive), "To be edible" (resultative).

(continued)

3. Piel - A general intensification of the Qal or root idea, having these translation values:
  - a. Factitive - e.g., "To be sound" (Qal), "To make sound" (Piel); "To be great" (Qal), "To magnify" (Piel).
  - b. Factitive/causative - Similar to above but with intransitive verbs, e.g., "To learn" (Qal), "To teach" (Piel of same verb).
  - c. Denominative - Many times there is not a Qal (root) form to these verbs. There may be a noun similar to the verb, so the effect is the intensification of the noun to verbal proportions, e.g., "Word" (noun), "To speak" (Piel).
  - d. Intensive - There is no way to express this concept except by example: "He ran" (Qal), "He bolted" or "He ran hard" (Piel).
4. Pual - This is the passive counterpart to the Piel, e.g., "He magnified" (Piel), "He was magnified" (Pual).
5. Hiphil - The essential idea of this conjugation is causative, with the following translation values:
  - a. Causative - e.g., "To hear" (Qal), "To cause to hear" (Hiphil).
  - b. Permissive - e.g., "I see a thing" (Qal), "I am allowed to see a thing" (Hiphil).
  - c. Stative - This is an unusual use. e.g., "To be wicked" (Stative Qal verb), "To act wickedly" (Hiphil).
  - d. Denominative - Here there is a similar change as in the Piel, i.e., turning a noun into a verb, but with a causative idea, e.g., "Ear" (noun), "To give ear to" or "To listen" (Hiphil).
6. Hophal - This is the passive of the Hiphil, e.g., "He caused the man to see the light" (Hiphil), "The man was caused to see the light" (Hophal).
7. Hithpael - The general idea is that of intensive and reflexive together, with translation values as follows:
  - a. Reflexive - e.g., "To sanctify" (Qal), "To sanctify oneself" (Hithpael); "To be great" (Qal), "To magnify oneself" (Hithpael).
  - b. Reciprocal - e.g., "To see" (Qal), "To see one another" (Hithpael); "To speak" (Qal), "To converse" (Hithpael).
  - c. Indirect reflexive - This has the idea of doing something for self-interest or detriment, i.e., a middle idea; e.g., "To supply oneself with provisions."
  - d. Iterative - Indicates a repetitive process; e.g., "To walk" or "To go" (Qal), "To walk back and forth continually" (Hithpael).
  - e. Denominative - Again, a noun form is changed to a verbal idea, now showing self-interest or involvement; e.g., "Prophet" (noun), "To prophesy" (Hithpael).

#### Imperative

This is another verb form, called the command form. In the Hebrew, there is not just a second person form, but also first and third person forms called the Jussive and Cohortative forms respectively. The verb is not clearly seen as a command in the latter two forms when translated into English. They are both often represented thusly: "Let me (verb)..." (Jussive) and "Let us (verb)..." (Cohortative).

FOR A GREEK WORD STUDY:

ASK A VERB FIVE QUESTIONS

1. What is its person? Options are first, second, third.
2. What is its number? Options are singular, plural.
3. What is its tense? Options are present, imperfect, future, first and second aorist, perfect, pluperfect, participle, infinitive.
4. What is its mood? Options are indicative, subjunctive, optative (rare), imperative.
5. What is its voice? Options are active, middle, passive.

ASK A NOUN THREE QUESTIONS

1. What is its case? Options are nominative, genitive, dative, accusative.
2. What is its gender? Options are masculine, feminine, neuter.
3. What is its number? Options are singular, plural.

ASK AN ADJECTIVE FOUR QUESTIONS

1. What is its case? Options are nominative, genitive, dative, accusative.
2. What is its gender? Options are masculine, feminine, neuter.
3. What is its number? Options are singular, plural.
4. Is it in concord with the noun? In other words, adjectives are supposed to assimilate to the same case, gender, and number as the noun it modifies. If it does not, why not?

ASK A PRONOUN FOUR QUESTIONS

1. What is its case? Options are nominative, genitive, dative, accusative.
2. What is its gender? Options are masculine, feminine, neuter.
3. What is its number? Options are singular, plural.
4. Is it in concord with the noun? In other words, a pronoun is supposed to assimilate the case, gender, and number of the noun it takes the place of. If it does not, why not?

ASK A RELATIVE PRONOUN FOUR QUESTIONS

1. What is its case? Options are nominative, genitive, dative, accusative.
2. What is its gender? Options are masculine, feminine, neuter.
3. What is its number? Options are singular, plural.
4. Is it in concord with the noun? In other words, a pronoun is supposed to assimilate the case, gender, and number of the noun it takes the place of. If it does not, why not?

ASK A PREPOSITION THREE QUESTIONS

1. What case is it currently controlling?
2. What is the root meaning of the preposition?
3. What is the derived meaning of the preposition in this case?

(continued)

FOR A HEBREW WORD STUDY:

Although the participle, imperative, infinitive, absolute, and infinitive construct are separate parts of speech, they will be treated here and in the Analytical as a state or tense of the verb. "High roaders" will learn more about these as they continue in their studies.

## ASK A VERB SIX QUESTIONS

1. What is its stem? Options are Qal, Niphal, Piel, Pual, Hithpael, Hiphil, Hophal, or Hishtaphel.
2. What is its state? Options are perfect (the Analytical will call the perfect "preterite"), imperfect (the Analytical will call the imperfect "future"), participle, imperative, infinitive absolute, infinitive construct.
3. This applies only to perfect and imperfect states, and the imperative: What is its person? Options are first, second, third for perfect and imperfect; second, third for imperative.
4. This applies to all but the infinitives: What is its gender? Options are masculine, feminine.
5. This applies to all but the infinitives: What is its number? Options are singular, plural.
6. This applies to all but the infinitive absolute: Does it have a pronoun suffix? Options are yes, no.

## ASK A NOUN THREE QUESTIONS

1. What is its number? Options are singular, plural, dual.
2. What is its state? Options are absolute, construct, pronominal. (The Analytical will only mention if a noun is in the construct state. If it says nothing about state and has no suffix, it is absolute. If it says nothing about state but has a suffix, it is pronominal.)
3. What is its gender? Options are masculine, feminine.

## ASK AN ADJECTIVE TWO QUESTIONS

1. What is its gender? Options are masculine, feminine.
2. What is its number? Options are singular, plural, dual.

## ASK A PRONOUN OR PRONOUN SUFFIX THREE QUESTIONS

1. What is its person? Options are first, second, third.
2. What is its number? Options are singular, plural.
3. What is its gender? Options are masculine, feminine.

Note: The Analytical will also mention "case" in relationship to Hebrew words. However, there are no case inflections in Hebrew, so case is merely a name used to describe the position of the word in the sentence, not its form. That is why I have not mentioned case in analyzing Hebrew words. It makes no difference at this point.