Searching Google.com databases

Questions to answer for a database:

1. What subjects and publication types are included in the database?

   Any subject and every subject. However it must be freely available. On campus there are many resources you have access to that are not free because the library pays for them and makes them available to anyone on the Notre Dame network. Google Book indexes books and journal articles, Google Scholar indexes journal articles, Google Patent indexes patents, and Google indexes web pages and may also include books, articles, and patents.

2. What are the coverage dates?

   Anything added to a web page since 1992.

3. What Boolean operators are used by the database?

   AND Space between words or phrases is interpreted by the Google software as an AND
   OR Capitalized OR
   NOT Minus sign immediately preceding a word or phrase

4. If truncation is allowed then what symbols are used?

   None. Uses word stemming technology so the system automatically truncates.

5. If wildcards are allowed then what symbols are used?

   None

6. How do you search for a phrase?

   a. System automatically determines if something is a phrase
   b. You can force a phrase by putting “quotes around the phrase terms”
      Example: “Notre Dame”
      There is a phrase wildcard – “first-word * last-word” Google will find phrases where the first word is within 80 characters of the last word.
      Example: “Fighting * Dame” = Fighting Irish of the University of Notre Dame

7. Is it possible to group words from the same concept?

   No

8. Any unique features?

   Synonyms................................................. ~library
   Definitions............................................... define:library
   Search for words in the title of a web page....... allintitle:gone with the wind
   Who is linking to a particular web page........... link:physics.library.nd.edu
Key Concepts

A key concept should be a single word or a phrase. A phrase usually does not have verbs, articles, or prepositions.

1. Circle the key concept(s) in the following sentences:
   
   A. What is the effect of aspirin on blood clotting?

Key Concepts according to google

2. Type the sentence from question 1A into google. How many results do you get?

3. A. What key concepts did google identify? Write them below. 
   (Look at the first page of google search results for words in bold.)

   B. Are these key concepts the same as you identified? Yes or No

   C. Does google automatically search for alternate forms of a word? Yes or No

What are stop words? Words that are not key concepts and therefore are not included by the search engine in searching the database.

Rule – Stop words: Google replaces every stop word with a space.

Rule – AND: When google sees a space it automatically inserts a Boolean AND.
Phrase searching

Enclose the words in double quotes
Example “star wars”

4. A. Type effect aspirin “blood clotting”. How many results do you get?

B. Is this different from your answer in #2? Yes or No

C. If yes then is it more or less than your answer in #2? More or Less

Allintitle: searching

Examples:  allintitle:caffeine
           allintitle:notre dame
(nospace on either side of the colon.)

5. How many web pages have the two key concepts (aspirin blood clotting) in their title?

Google will search for words in the title of a web page. The title of a web page is found above the url at the very top of the web page. Words in the title are more important than words in the web page because they describe the content of the page.

Synonyms according to google

Precede the term with a tilda
Example: ~caffeine

6. A. Find synonyms for the following words.
   Look at the first google search results page. The synonyms are in bold.

   Aspirin
   Blood

B. Are there any system-generated synonyms that don’t look like synonyms? Yes or No
   Circle those odd synonyms in your answers in 6A.
OR searching

Capitalize OR to search for either term, otherwise google will discard the term & do an AND search.
Example: Christmas OR Easter dinner

Sometimes using ~ to search for synonyms does not include a synonym that you want to search for. This is when you will want to use the Boolean OR operator.

7. A. Type ham OR pork. How many results?

B. Type ham or pork. How many results?

C. Did you get the same number in 7B as in 7A? Yes or No. If no then why not?

Define: searching

Example: define:caffeine

8. What is the definition of the following word?
   (If there is more than one definition then pick the shortest one.)

   Defenestration

Boolean Operators (AND, OR, NOT) and Phrases in google.com

Separate your key concepts with a Boolean operator.

AND A space between words is the same as AND between each word.
   Example: notre dame

OR Capitalize OR otherwise google will discard the term.
   Example: ham OR pork dinner

NOT Precede the unwanted term with a minus sign.
   Example: “star wars” ¬movie

Phrases Enclose the words in double quotes.
   Example: “star wars”
Searching the web

Remember to follow these steps
2. Identify the key concepts.
3. Are there any synonyms or related terms for the concepts?
4a Determine which operators to use.
4b Do you need to search for a phrase?
6. Evaluate your answers to see if you need to modify your search strategy.

   Write the title of the web page at the top of the first results page.
   (Does this title puzzle you?)

10. Find a web page that shows the popular or common first names?
    (Hint: use OR and use quotes for a phrase)
    Write the rank of your first name.

    Write your answer on the blackboard.

11. Find a chart that explains the relationship difference between first cousin once removed and a second cousin.
    (Hint: what are the key concepts? – did you get at least two?)

Google Calculators and Conversions

Write the answer for each question.

12. What is the square root of 533.61? Type sqrt(533.61)

13. What is 9 raised to the power of 4.53? Type 9^4.53
14. What is 5367 multiplied by 279? Type 5367 * 279

15. What is the natural log of 68.34? Type ln 68.34

16. What is 7,650 divided by 23? Type 7650/23

17. The dimensions of a football field are 160 feet by 360 feet. What is the area? (use what you have learned from questions 12-16)

18. How many square feet are in an acre? Type square feet in acre

19. How many acres are needed for a football field? (use what you have learned from questions 12-18)

20. I have 5,000,000 Japanese Yen. How much US money do I have? Type 5,000,000 yen in usd

21. I want to exchange $500 for British pounds. How many British pounds do I get? (notice the pattern in Q18 & Q20)

22. On a trip to Canada, the weather report on the radio says the day is going to be a hot one, 38 Celsius. How hot is this in Fahrenheit? (notice the pattern in Q18 & Q20)