PREMISE & CONCLUSION INDICATORS

INSTRUCTIONS: Let the letters "P" stand for a premise/reason, and "C" for a conclusion. Insert these letters in the appropriate positions. For example, the correct insertion of these letters in "___ therefore, ___" is "P therefore C". Since "therefore" introduces a conclusion, it is a conclusion indicator. The correct insertion of "P" and "C" in "Since ___, ___" is "Since P, C". As "since" introduces a premise, it is a premise indicator. If there is an expression that we typically do not use a premise or a conclusion indicator, then do NOT insert any letter. Notice that in some cases some insertions would require some grammatical changes.

EXERCISE A

1) ___, consequently, ___.
3) As shown by the fact that ___, ___.
5) As ___, ___.
7) ___. From this we can deduce that ___.
9) ___. Accordingly, ___.
11) ___. From this it follows that ___.
13) ___. Moreover, ___.
15) ___. This proves that ___.
17) ___. Furthermore, ___.
19) ___. Hence, ___.
21) ___. Then ___. [find exceptions]
23) Because ___, ___. [arguments/explanations]
25) ___. That is why ___.
27) ___. Here is why, ___.
29) ___. Obviously ___.
31) ___. implies that ___.
33) due to the reason that ___.
35) Despite the fact that ___, ___.
37) In view of the fact that ___, ___.
39) ___. may be deduced from ___.
41) ___. may be inferred from ___.
43) ___. Also ___.
45) ___, thus, ___. [Identify exceptions]
47) It can be derived from ___.
49) ___. This bears out the point that ___.
51) ___. establishes that ___.
53) ___. proves that ___.
55) ___. This is proven from ___.
57) ___. supports that ___.
59) In support of ___, consider ___.
61) ___. Evidently, ___.
63) Inasmuch as ___, ___.
65) On the hypothesis that ___, ___.
67) ___. indicates that ___.
69) ___. guarantees that ___.
71) On the basis of ___.
73) In light of the fact that ___, ___.
75) ___. You just need to consider that ___.
77) ___. That makes me believe that ___.
79) ___. In conclusion, ___. [find exceptions.]
81) ___. That authorizes me to say that ___.
83) ___. This marshals in favor of ___.

2) ___. entails that ___.
4) ___. This is shown by ___.
6) ___. shows that ___.
8) ___. However, ___.
10) ___. I conclude that ___.
12) ___. follows from ___.
14) ___. That is proven from ___.
16) Granted that ___, ___.
18) Supposing that ___, ___.
20) ___. For ___.
22) ___. because ___. [arg/expl]
24) ___. Nevertheless ___.
26) ___. This is why ___, ___.
28) ___. Here is why, ___.
30) ___. This being so, ___.
32) As indicated by ___, ___.
34) On account of the reason that ___, ___.
36) ___. In view of that, ___.
38) ___. In addition, ___.
40) ___. One can deduce that ___.
42) ___. One may infer that ___.
44) ___. thereby showing that ___.
46) ___. Still ___.
48) ___. That is derived from ___.
50) ___. Besides ___.
52) ___. justifies that ___.
54) ___. Its proof is that ___.
56) ___. Finally, ___.
58) ___. is supported by ___.
60) ___. lends credence to ___.
62) ___. leads me to believe that ___.
64) ___. As a result, ___.
66) ___. demonstrates that ___.
68) ___. signifies that ___.
70) ___. is based on ___.
72) ___. In that case, ___.
74) Even if ___, ___.
76) ___. But that comes down to ___.
78) ___. To say that is to say ___.
80) ___. This comes from ___.
82) ___. I'm convinced from ___, that ___.
84) ___. For this reason, ___.

1 Impersonal pronouns sometimes refer to earlier statements.
Identify or invent three other premise indicators.
Identify or invent three other conclusion indicators.

What do you do when you are not sure whether an expression is used as either a premise or conclusion indicator? Here is an illustration of a procedure to follow:

Suppose you have read or heard a few times “accordingly” used by competent writers or speaker, but you are not sure of its use to identify the argumentative function of statements. Then compare the following sentences:

(a) Accordingly it is raining, it is cloudy.
(b) It is raining, accordingly, it is cloudy.

Sentence (b) sounds right. Since you already know that “it is cloudy” is the conclusion, “accordingly” functions as a conclusion indicator.

Here is a general description of the procedure:

1. Apply the expression to a simple argument whose conclusion and premise are obvious to you. For example, in "(1)< It’s raining>, (2)<It’s cloudy>", statement (1) is evidently the premise for conclusion (2).

2. Insert the expression in the two different spots
   (a) __________ it is raining, it is cloudy, and
   (b) It is raining, ______ it is cloudy.

3. In which case does the insertion make more sense, or sound most reasonable, or feel most right? If it is (a), then the expression functions as premise indicator, BECAUSE you already know that “it is raining” is the premise here. If it is (b), then the expression functions as a conclusion indicator, FOR you already know that “it is cloudy” functions as a conclusion here.

Note that this procedure is not reliable if the expression is totally new to you. In such cases, use this method with your dictionary.
INSTRUCTIONS: (a) Number the statements consecutively. (b) Circle conclusion indicators. (c) Box in premise indicators. (d) Diagram the reasoning: since we go FROM premise(s) TO a conclusion, diagram (i) means that statement (1) is the premise of conclusion (2): the arrow always points to the conclusion; diagram (ii) means that statement (2) is a premise and (1) its conclusion.

EXAMPLE: 1. (1)<S/He’s the greatest professional athlete> because of (2)<his/her many accolades throughout his career>. Diagram (ii)

EXERCISE B

2. College campuses should be safe for all students. Therefore, binge drinking should not be part of campus life.

3. Since the protective ingredients of sunscreen lotion require several minutes to be absorbed, it should be applied approximately 30 minutes prior to one’s exposure to the sun.

4. S/he received only A’s this semester. Consequently, s/he will be on the dean’s list.

5. You are an eighteen years old student. I infer this from the fact that you are in your second year of college.

6. This is art. I infer that personal taste comes into play.

7. I’m not making enough money to pay off my car, that is why I need to get a less expensive car.

8. The pills are totally natural, accordingly, they are totally safe.

9. Given that you do not have a parking pass, you may not part in the employee parking lot.

10. Inasmuch as homosexuals have the ability to care for children the same as heterosexuals, they should be able to adopt children.

11. I can run a mile each day. It follows that I am in better shape than the average person.

12. Most people who are famous have chosen to be famous, thus they should accept the consequences of their fame.

13. As water is involved in all vital processes in the body, it’s the nutrient of greatest concern for the physically active individual.

14. Almost all talk therapies utilize Freudian concepts, whether they acknowledge it or not. Hence, common elements can be found in seemingly diverse therapies.

15. I have seen many times how marijuana and other narcotics can relieve the suffering of those in significant pain. In the light of this fact, narcotics should be made available to all those in pain.

16. When two odd numbers are multiplied together, the product is odd; for that reason the set of odd numbers is closed under multiplication.

17. Closure is a useful idea. For if we are multiplying two (or more) odd numbers and the product we calculate is even, we can conclude that our product is incorrect.
**INSTRUCTIONS:** The numbers stand for statements. Use the premise and conclusion indicators to diagram the inferences. Example: “Because (1), (2)” uses the premise indicator, “because”, which introduces a premise, and so the diagram (i.e., the map of the reasoning) is:

**EXERCISE C**

1. (1) because of (2).
2. (1) entails that (2).
3. Since (1), (2).
4. (1) is entailed by (2).
5. (1) for the reason that (2).
6. (1) follows from (2).
7. (1) is due to the fact that (2).
8. It follows from (1) that (2).
9. (1) is indicated by (2).
10. (1) for the reason that (2).
11. (1) indicates that (2).
12. From (1) I conclude that (2).
13. (1) is made likely by (2).
14. (1). This indicates that (2).
15. (1) makes (2) likely.
16. One can deduce from (1), that (2).
17. (1) is proven by (2).
18. (1) is deduced from (2).
19. (1) proves (2).
20. (1) supports that (2).
21. (1) shows that (2).
22. (1) is supported by (2).
23. (1) is shown to be true by (2).
24. (1) implies that (2).
25. (1) may be derived from (2).
26. (1) is established by (2).
27. (1) may be inferred from (2).
28. (1) is based on (2).
29. From (1) I infer that (2).
30. (1) is the basis of (2).
31. (1), as demonstrated by (2).
32. (1) guarantees that (2).
33. (1) demonstrates that (2).
34. (1) This means that (2).
35. (1), which is the consequence of (2).
36. (1). This signifies that (2).
37. (1), consequently (2).
38. (1). This is the reason why (2).
39. (1) which is shown by (2).
40. (1). This is the reason why, (2).
41. (1), which shows that (2).
42. The reason why (1), is that (2).
ANSWERS A

1) P, consequently, C.
2) P entails that C.
3) As shown by the fact that P, C.
4) C. This is shown by P.
5) As P, C.
6) P shows that C.
7) P. From this we can deduce that C.
8) ___. However, ___. [DISCOUNT EXPRESSION]
9) P. Accordingly, C.
10) P. I conclude that C.
11) P. From this it follows that C.
12) C follows from P.
13) ___. Moreover, ___. [CONJUNCTION, like “and”]
14) C. That is proven from P.
15) P. This proves that C.
16) Granted that P, C.
17) ___. Furthermore, ___. [CONJUNCTION, like “and”]
18) Supposing that P, C.
19) P. Hence, C.
20) C. For P. [Careful, “for” has many other functions.]
21) P. Then C. [find exceptions]
22) C because P. [Used in both arguments & explanations.]
23) Because P, C. [arguments/explanations]
24) ___. Nevertheless ___. [DISCOUNT EXPRESSION]
25) P. That is why C.
26) This is why C, P.
27) C. Here is why, P.
28) Here is why C, P.
29) P. Obviously C. [CAREFUL: lots of exceptions.]
30) P. This being so, C.
31) P implies that C.
32) As indicated by P, C.
33) C due to the reason that P.
34) On account of the reason that P, C.
35) Despite the fact that ___, ___. [DISCONT EXPR.]
36) P. In view of that, C.
37) In view of the fact that P, C.
38) ___. In addition, ___. [CONJUNCTION, like “and”]
39) C may be deduced from P.
40) P. One can deduce that C.
41) C may be inferred from P.
42) P. One may infer that C.
43) ___. Also ___. [CONJUNCTION, like “and”]
44) P, thereby showing that C.
45) P, thus, C. [Identify exceptions]
46) ___. Still, ___. [DISCOUNT EXPRESSION]
47) It can be derived from P that C.
48) C. That is derived from C.
49) P. This bears out the point that C.
50) ___. Besides, ___. [CONJUNCTION, like “and”]
51) P establishes that C.
52) P justifies that C.
53) P proves that C.
54) C. Its proof is that P.
55) C. This is proven from P.
56) ___. Finally, ___. [CONJUNCTION, like “and”]
57) P supports that C.
58) C is supported by P.
59) In support of C, consider P.
60) P lends credence to C.
61) P. Evidently, C. [CAREFUL: lots of exceptions.]
62) P leads me to believe that C.
63) Inasmuch as P, C.
64) P. As a result, C.
65) On the hypothesis that P, C.
66) P demonstrates that C.
67) P indicates that C.
68) P signifies that C.
69) P guarantees that C.
70) C is based on P.
71) On the basis of P, C.
72) P. In that case, C.
73) In light of the fact that P, C.
74) Even if ___, ___. [DISCOUNT EXPRESSION]
75) C. You just need to consider that P.
76) P. But that comes down to C.
77) P. That makes me believe that C.
78) P. To say that is to say C.
79) P. In conclusion, C. [find exceptions.]
80) C. This comes from P.
81) P. That authorizes me to say that C.
82) I’m convinced from P, that C.
83) P. This marshals in favor of C.
84) P. For this reason, C.
85) P. On this account, C.
86) Seeing that P, C.

ANSWERS B

I will insert (PI) after premise indicators, and (CI) after conclusion indicators.
In order to have you save paper, I will diagram the reasoning with sideways arrows. So, if you see $1 \rightarrow a_2$, that means that (1) functions as a reason/premise for conclusion (2), and the “a” means that it is an argument. If you see $1 \rightarrow e_2$, that means that (1) functions as a reason for conclusion (2), and the “e” means that it is an explanation.

2. (1)<College campuses should be safe for all students>. Therefore (CI), (2)<binge drinking should not be part of campus life>. $1 \rightarrow a_2$

3. Since (1)<the protective ingredients of sunscreen lotion require several minutes to be absorbed>, (2)<it should be applied approximately 30 minutes prior to one’s exposure to the sun>. $1 \rightarrow a_2$

4. (1)<S/he received only A’s this semester>. Consequently (CI), (2)<s/he will be on the dean’s list>. $1 \rightarrow a_2$ This is a prediction. If the reasoning had been, (1)<S/he received only A’s this semester>. Consequently, (2)<s/he will be on the dean’s list>, then the diagram would have been $1 \rightarrow e_2$.

5. (1)<You are an eighteen years old student>. I infer (CI) this from the fact (PI) (2)<you are in your second year of college>. In “I infer this”, the “this” is an impersonal pronoun standing for claim (1). $2 \rightarrow a_1$

6. (1)<This is art>. I infer (CI) (2)<personal taste comes into play>. $1 \rightarrow a_2$

7. (1)<I’m not making enough money to pay off my car>, that is why (CI) (2)<I need to get a less expensive car>. $1 \rightarrow a_2$

8. (1)<The pills are totally natural>, accordingly (CI), (2)<they are totally safe>. $1 \rightarrow a_2$

9. Given (PI) (1)<you do not have a parking pass>, (2)<you may not part in the employee parking lot>. $1 \rightarrow a_2$

10. Inasmuch as (PI) (1)<homosexuals have the ability to care for children the same as heterosexuals>, (2)<they should be able to adopt children>. $1 \rightarrow a_2$

11. (1)<I can run a mile each day>. It follows that (CI) (2)<I am in better shape than the average person>. $1 \rightarrow a_2$

12. (1)<Most people who are famous have chosen to be famous>, thus (CI) (2)<they should accept the consequences of their fame>. $1 \rightarrow a_2$

13. As (PI) (1)<water is involved in all vital processes in the body>, (2)<it’s the nutrient of greatest concern for the physically active individual>. $1 \rightarrow a_2$

14. (1)<Almost all talk therapies utilize Freudian concepts>, whether they acknowledge it or not. Hence (CI), (2)<common elements can be found in seemingly diverse therapies>. $1 \rightarrow a_2$ Note that “whether they acknowledge it or not” is an aside, it is not part of (1).

15. (1)<I have seen many times how marijuana [relieve the suffering of those in significant pain]> and (2)<I have seen many times how] other narcotics can relieve the suffering of those in significant pain>. In the light of this fact (CI), (3)<narcotics should be made available to all those in pain>. $1 \rightarrow a_3$ In this example I have simply made explicit in square brackets what is left implicit.

16. (1)<When two odd numbers are multiplied together, the product is odd>; for that reason (CI) (2)<the set of odd numbers is closed under multiplication>. $1 \rightarrow a_2$ In this example, statement (1) is a conditional statement. NEVER break up a conditional statement into its propositions, for those propositions are not asserted. Review the worksheet on Sentences, Propositions, Statements.

17. (1)<Closure is a useful idea>. For (PI) (2)<if we are multiplying two (or more) odd numbers and the product we calculate is even, we can conclude that our product is incorrect>. $2 \rightarrow a_1$
statement, and “conclude that” in (1) functions like “then” in a regular conditional statement. Do NOT respond automatically to these words: examine how they are used in their context.

**ANSWERS C**

In order to help you save paper, I will draw the arrows sideways.

1. (1) because of (2). \(2 \rightarrow 1\)  
2. (1) entails that (2). \(1 \rightarrow 2\)
3. Since (1), (2). \(1 \rightarrow 2\)  
4. (1) is entailed by (2). \(2 \rightarrow 1\)
5. (1) for the reason that (2). \(2 \rightarrow 1\)  
6. (1) follows from (2). \(2 \rightarrow 1\)
7. (1) is due to the fact that (2). \(2 \rightarrow 1\)  
8. It follows from (1) that (2). \(1 \rightarrow 2\)
9. (1) indicated by (2). \(2 \rightarrow 1\)  
10. (1) for the reason that (2). \(2 \rightarrow 1\)
11. (1) indicates that (2). \(1 \rightarrow 2\)  
12. From (1) I conclude that (2). \(1 \rightarrow 2\)
13. (1) is made likely by (2). \(2 \rightarrow 1\)  
14. (1). This indicates that (2). \(1 \rightarrow 2\)
15. (1) makes (2) likely. \(1 \rightarrow 2\)  
16. One can deduce from (1), that (2). \(1 \rightarrow 2\)
17. (1) is proven by (2). \(2 \rightarrow 1\)  
18. (1) is deduced from (2). \(2 \rightarrow 1\)
19. (1) proves (2). \(1 \rightarrow 2\)  
20. (1) supports that (2). \(1 \rightarrow 2\)
21. (1) shows that (2). \(1 \rightarrow 2\)  
22. (1) is supported by (2). \(2 \rightarrow 1\)
23. (1) is shown to be true by (2). \(2 \rightarrow 1\)  
24. (1) implies that (2). \(1 \rightarrow 2\)
25. (1) may be derived from (2). \(2 \rightarrow 1\)  
26. (1) is established by (2). \(2 \rightarrow 1\)
27. (1) may be inferred from (2). \(2 \rightarrow 1\)  
28. (1) is based on (2). \(2 \rightarrow 1\)
29. From (1) I infer that (2). \(1 \rightarrow 2\)  
30. (1) is the basis of/for (2). \(1 \rightarrow 2\)
31. (1), as demonstrated by (2). \(2 \rightarrow 1\)  
32. (1) guarantees that (2). \(1 \rightarrow 2\)
33. (1) demonstrates that (2). \(1 \rightarrow 2\)  
34. (1) This means that (2). \(1 \rightarrow 2\)
35. (1), which is the consequence of (2). \(2 \rightarrow 1\)  
36. (1). This signifies that (2). \(1 \rightarrow 2\)
37. (1), consequently (2). \(1 \rightarrow 2\)  
38. (1). This is the reason why (2). \(1 \rightarrow 2\)
39. (1) which is shown by (2). \(2 \rightarrow 1\)  
40. (1). This is the reason why, (2). \(2 \rightarrow 1\)
41. (1), which shows that (2). \(1 \rightarrow 2\)  
42. The reason why (1), is that (2). \(2 \rightarrow 1\)