University of Kansas, Spring 2007
Philosophy 148: Reason and Argument
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Wednesday, March 7, 2007

Syllabus, continued: chapters 7–9

before lecture on Monday, March 12:

- ❑ Read chapter 7.
- ❑ Answer the following questions at the end of the chapter for practice. You can check your answers below.
  - Exercise 7-1: 1–5
  - Exercise 7-7: 1–12
  - Exercise 7-10: 1–5
  - Exercise 7-11: 1–5

Answers:

Exercise 7-1:

1. a. premise
   b. premise
   c. conclusion
2. a. premise
   b. premise
   c. conclusion
3. a. conclusion
   b. premise
4. a. premise
   b. premise
   c. conclusion
5. a. premise
   b. conclusion
   c. premise
   d. premise

Exercise 7-7:

1. false
2. false
3. valid, true
4. false
5. true
6. false
7. true
8. false
9. false
10. true
11. false
12. true

Exercise 7-10:

1. All well-mannered people had good upbringings.
2. Any sharp student will get a good grade in this course.
3. The only way there could be puddles everywhere is for it to have rained lately.
4. assumed *conclusion*: He will not drive recklessly.
5. If there are tons of leftovers from a party, it can't have been very successful.

Exercise 7-11:

1. Most well-mannered people had good upbringings.
2. Any sharp student will probably get a good grade in this course.
3. The most likely way there could be puddles everywhere is for it to have rained lately.
4. assumed conclusion: He'll drive safely.
5. If there are tons of leftovers from a party, it probably wasn't very successful.

in lecture on Monday, March 12:

- ■ I'll talk about chapter 7, including the following questions at the end of the chapter:
  - Exercise 7-10: 6–10
  - Exercise 7-11: 6–10

before lecture on Wednesday, March 14:

- ❑ Answer the following questions at the end of chapter 7 for practice. You can check your answers below.
  - Exercise 7-14: 1–5
  - Exercise 7-16: 1–5

Answers:

Exercise 7-14:

1. 2 and 3 on a line, with an arrow from that to 1.
2. 1 with an arrow to 3, and 2 with an arrow to 3.
3. 1 with an arrow to 2, with an arrow to 5; also 3 with an arrow to 4, with an arrow to 5.
4. 1 with an arrow to 2 and with an arrow to 3; then arrows from 2 and 3 to 4, with an arrow to 5, with an arrow to 6.

5. 1, 2, and 3 on a line, with an arrow from that to 4. Also, an arrow from 1 to 5, and an arrow from 2 to 6. Finally, arrows from 4, 5, and 6 to 7.

Exercise 7-16:

1. claims:
   1. Your distributor is the problem.
   2. There's no current at the spark plugs.
   3. If there's no current at the spark plugs, then either your alternator is shot or your distributor is defective.
   4. [unstated] Either your alternator is shot or your distributor is defective.
   5. If the problem were in the alternator, the your dash warning light would be on.
   6. The light isn't on.

   diagram:
   - 2 and 3 on a line, with an arrow from that to 4.
   - 4, 5, and 6 on a line, with an arrow to 1.
2. claims:
   1. The federal deficit must be reduced.
   2. It (the deficit) has contributed to inflation.
   3. It (the deficit) has hurt American exports.

   diagram:
   - 2 with an arrow to 1.
   - 3 with an arrow to 1.
3. claims:
   1. Professional boxing should be outlawed.
   2. Boxing almost always leads to brain damage.
   3. Anything that leads to brain damage should be outlawed.
   4. Boxing supports organized crime.
   5. [unstated] Anything that supports organized crime should be outlawed.

   diagram:
   - 2 and 3 on a line, with an arrow from that to 1.
   - 4 and 5 on a line, with an arrow from that to 1.
4. claims:
   1. They really ought to build a new airport.
   2. It (a new airport) would attract more business to the area.
   3. The old airport is overcrowded and dangerous.

   diagram:
   - 2 with an arrow to 1.
   - 3 with an arrow to 1.
5. claims:
   1 One shouldn't vote for Jackson.
   2. Jackson is too radical.
   3. Jackson is too inexperienced.
   4. Jackson's lack of experience would have made him a dangerous council member.
   5. [unstated] One shouldn't vote for anyone who is too radical.
   6. [unstated] One shouldn't vote for anyone who is too inexperienced.
   7. [unstated] One shouldn't vote for anyone who would have been a dangerous council member.

   diagram:
   - 2 and 5 on a line, with an arrow from that to 1.
   - 3 and 6 on a line, with an arrow from that to 1.
   - 4 and 7 on a line, with an arrow from that to 1.

in lecture on Wednesday, March 14:

- ■ I'll talk more about chapter 7, including the following questions at the end of the chapter:
  - Exercise 7-17: 1–5

discussion sections March 14–16:

Discussion sections won't meet on these days, due to spring break

March 19–23: no class (spring break)

discussion sections on March 26:

Discussion sections won't meet today, due to spring break.

before lecture on Monday, March 26:

- ❑ Read chapter 8, through p. 254.
- ❑ Answer the following questions at the end of that section for practice. You can check your answers below.
  - Exercise 8-1, 1–15

Answers:

Exercise 8-1:

1. All salamanders are lizards.
2. Some lizards are not salamanders.
3. All lizards are reptiles.
4. All members of the suborder Ophidia are snakes.
5. All members of the suborder Ophidia are snakes.
6. No burrowing snakes are poisonous snakes.
7. All alligators are reptiles.
8. All things that qualify as frogs are things that qualify as amphibians.
9. All places there are snakes are places there are frogs.
10. All places there are snakes are places there are frogs.
11. All times the frog population decreases are times the snake population decreases.
12. All the people who arrived are cheerleaders.
13. All the people who got raises are vice presidents.
14. All the people who got seats are people who arrived early.
15. Some home movies are things that are as boring as dirt.

in lecture on Monday, March 26:

- ■ I'll talk about the first part of chapter 8, including the following questions at the end of the chapter:
  - Exercise 8-1: 16–20

before lecture on Wednesday, March 28:

- ❑ Read pp. 266–274 of chapter 8.
- ❑ Answer the following questions at the end of that section for practice. You can check your answers below.
  - Exercise 8-11: 1–6

Answers:

Exercise 8-11:

1. Venn diagram:
   S = books that are sewn in signatures
   P = paperbacks
   M = books that use glue in their spines
   marking it:
   - The first premise requires shading in areas 2 and 3. (See Figure 10 on p. 270 for the numbering of the areas.)
   - The second premise requires shading in areas 4 and 5.
   - The conclusion requires shading in areas 2 and 5. Since this is already accomplished by the marking for the premises, the argument is valid.
2. Venn diagram:
   S = sound arguments
   P = interesting arguments
   M = valid arguments
   marking it:
   - The first premise requires shading in areas 1 and 2.
   - The second premise requires an X on the border between areas 4 and 7.
   - The conclusion requires an X in area 4. Since this is not already accomplished by the marking for the premises, the argument is invalid.
3. Venn diagram:
   S = mathematicians
   P = statisticians
   M = topologists
   marking it:
   - The first premise requires shading in areas 6 and 7.
   - The second premise requires an X in area 4.
   - The conclusion requires an X in area 1 or 4. Since this is already accomplished by the marking for the premises, the argument is valid.
4. Venn diagram:
   S = times that are today
   P = times that Louis is tired
   M =- times that Louis is edgy
   marking it:
   - The first premise requires shading in areas 2 and 3.
   - The second premise requires shading in areas 1 and 2.
   - The conclusion requires shading in areas 1 and 4. Since this is not already accomplished by the marking for the premises, the argument is invalid.
5. Venn diagram:
   S = voters
   P = residents
   M = citizens
   marking it:
   - The first premise requires shading in areas 1 and 2.
   - The second premise requires an X on the border between areas 4 and 7.
   - The conclusion requires an X in area 4. Since this is not already accomplished by the marking for the premises, the argument is invalid.
6. Venn diagram:
   S = chords that use the major scale
   P = dominant seventh chords
   M = chords that are in the mixolydian mode
   marking it:
   - The first premise requires shading in areas 2 and 3.
   - The second premise requires shading in areas 4 and 5.
   - The conclusion requires shading in areas 2 and 5. Since this is already accomplished by the marking for the premises, the argument is valid.

in lecture on Wednesday, March 28:

- ■ I'll talk more about chapter 8, including the following questions:
  - Exercise 8-11: 7–10

before discussion section March 28–April 2:

- ❑ Answer the following questions. You will turn in your answers in discussion section, for credit towards your homework grade.
  - Exercise 8-12: 1–10

in discussion section March 28–April 2:

- ■ Your homework will be collected, recorded, and returned.
- ❑ Your discussion-section leader will go over your homework with you.

before lecture on Monday, April 2:

- ❑ Read chapter 9, pp. 287–301.
- ❑ Answer the following questions at the end of that section for practice. You can check your answers below.
  - Exercise 9-1: 1–5
  - Exercise 9-2: 1–15

Answers:

Exercise 9-1:

1. $Q \rightarrow P$
2. $Q \rightarrow P$
3. $P \rightarrow Q$
4. $Q \rightarrow P$
5. $(Q \rightarrow P) \ \& \ (P \rightarrow Q)$

Exercise 9-2:

1. $(P \rightarrow Q) \ \& \ R$
2. $P \rightarrow (Q \ \& \ R)$
3. $(P \ \& \ Q) \rightarrow R$
4. $P \ \& \ (Q \rightarrow R)$
5. $P \rightarrow (Q \rightarrow R)$
6. $(P \rightarrow Q) \ \& \ (R \rightarrow Q)$
7. $(P \vee R) \rightarrow Q$
8. $P \vee (Q \rightarrow R)$
9. $(P \vee Q) \rightarrow R$
10. $P \rightarrow (Q \vee R)$
11. $\sim C \rightarrow S$
12. $\sim(C \rightarrow S)$
13. $S \rightarrow \sim R$
14. $\sim S \vee \sim C$
15. $F \vee C$

in lecture on Monday, April 2:

- ■ I'll talk about chapter 9, including the following questions:
  - Exercise 9-2: 16–20

Tuesday, April 3:

- ❑ If you have a disability that entitles you to special accommodations for taking tests, and you want to avail yourself of those special accommodations for our next test, contact the Disability Resources office by the end of tomorrow, April 4, about making arrangements to take the test we have scheduled for April 11. If you are entitled to time and a half or double time, you will need to ask Disability Resources to proctor your test in a classroom other than our lecture hall. Be sure that the time slot you arrange with Disability Resources does not start later than the schedule start time of our test—10 a.m. on Wednesday, April 11.

lecture on Wednesday, April 4:

- ■ Lecture is cancelled today, because I'll be a conference of the American Philosophical Association. (Discussion sections will take place as scheduled; see below for details.)

before discussion section April 4–9:

- ❑ Read pp. 302–308.
- ❑ Answer the following questions at the end of that section for practice. Use the full truth-table method. You can check your answers on the next three pages.
  - Exercise 9-4: 1–6

9-4, 1-6

1. $P \vee \sim Q$

$\sim Q$

$\sim P$

P	Q	$\sim Q$	$(P \vee \sim Q)$	$\sim P$
T	T	F	T	F
T	F	T	T	F
F	T	F	F	T
F	F	T	T	T

← row in which all premises are true and conclusion is false

↳ invalid

2. $P \rightarrow Q$

$\sim Q$

$\sim P$

P	Q	$(P \rightarrow Q)$	$\sim Q$	$\sim P$
T	T	T	F	F
T	F	F	T	F
F	T	T	F	T
F	F	T	T	T

← no row in which all premises are true and conclusion is false

↳ valid

3. going to need 8 rows for this one!

See next page

3. $\sim(P \vee Q)$

$R \to P$

$\therefore \sim R$

P	Q	R	$(P \vee Q)$	$\sim(P \vee Q)$	$R \to P$	$\sim R$
T	T	T	T	F	T	F
T	T	F	T	F	T	T
T	F	T	T	F	T	F
T	F	F	F	T	T	T
F	T	T	T	F	F	F
F	T	F	T	F	T	T
F	F	T	T	F	F	F
F	F	F	F	T	T	T

no row in which all premises are true and conclusion is false → valid

4. $P \to (Q \to R)$

$\sim(P \to Q)$

$\therefore R$

P	Q	R	$Q \to R$	$P \to (Q \to R)$	$P \to Q$	$\sim(P \to Q)$
T	T	T	T	T	T	F
T	T	F	F	F	T	F
T	F	T	T	T	F	T
T	F	F	T	T	T	F
F	T	T	T	T	T	F
F	T	F	F	T	T	F
F	F	T	T	T	T	F
F	F	F	T	T	T	F

row in which all premises are true and conclusion is false → invalid

5. $P \vee (Q \rightarrow R)$

$Q \;\&\; \sim R$

$\therefore \sim P$

P	Q	R	Q→R	P ∨ (Q→R)	~R	(Q & ~R)	~P
T	T	T	T	T	F	F	F
T	T	F	F	T	T	T	F
T	F	T	T	T	F	F	F
T	F	F	T	T	T	F	F
F	T	T	T	F	F	F	T
F	T	F	F	F	T	T	T
F	F	T	T	F	F	F	T
F	F	F	T	T	T	F	T

row in which all premises are true and conclusion is false → invalid

6. $(P \rightarrow Q) \vee (R \rightarrow Q)$

$P \;\&\; (\sim P \rightarrow \sim R)$

$\therefore Q$

P	Q	R	P→Q	R→Q	(P→Q) ∨ (R→Q)	~P	~R	(~P→~R)	P & (~P→~R)
T	T	T	T	T	T	F	F	T	T
T	T	F	T	T	T	F	T	T	T
T	F	T	F	F	F	F	F	T	T
T	F	F	F	T	T	F	T	T	T
F	T	T	T	T	T	T	F	F	F
F	T	F	T	T	T	T	T	T	F
F	F	T	T	F	T	T	F	F	F
F	F	F	T	T	T	T	T	T	F

row in which all premises are true and conclusion is false → invalid

in discussion section April 4–9:

- ❑ You will go over some of the questions you did for practice for today.
- ❑ You will also work on the following questions in class:
  - Exercise 9-4, 7–9

before lecture on Monday, April 9:

- ❑ Read chapter 9, pp. 310–314.
- ❑ Answer the following questions at the end of that section for practice. You can check your answers below.
  - Exercise 9-6: 1–3
  - Exercise 9-7: 1–6

Answers:

Exercise 9-6:

1. chain argument
2. disjunctive argument
3. constructive dilemma

Exercise 9-7:

1. 1. R → P (premise)
   2. Q → R (premise) / therefore Q → P
   3. Q → P (1, 2, chain argument)
2. 1. P → S (premise)
   2. P v Q (premise)
   3. Q → R (premise) / therefore S v R
   4. S v R (1, 2, 3, constructive dilemma)
3. 1. R & S (premise)
   2. S → P (premise) / therefore P
   3. S (1, simplification)
   4. P (2, 3, modus ponens)
4. 1. P → Q (premise)
   2. ~P → S (premise)
   3. ~Q (premise) / therefore S
   4. ~P (1, 3, modus tollens)
   5. S (2, 4, modus ponens)
5. 1. (P v Q) → R (premise)
   2. Q (premise) / therefore R
   3. P v Q (2, addition)
   4. R (1, 3, modus ponens)
6. 1. ~P (premise)
   2 ~(R & S) v Q (premise)
   3. ~P → ~Q (premise) / therefore ~(R & S)
   4. ~Q (1, 3, modus ponens)
   5. ~(R & S) (2, 4, disjunctive argument)

in lecture on Monday, April 9:

- ■ I'll talk about chapter 9, including the following questions:
  - Exercise 9-6: 4–5
  - Exercise 9-7: 7–10

before lecture Wednesday, April 11:

- ❑ You should begin studying for the test on chapters 7–9, if you have not already done so.
  - This will count for 15 percent of your grade.
  - To study for this test, you can look at the tests from last semester (one practice, one for credit) that I've attached to the end of this part of the syllabus. The answers are given on p. 40; try to ignore them until you've answered the questions on your own.
  - Here are the ground rules for the test: You'll have 45 minutes to take the test. To be fair to the students who finish on time (who will be the vast majority—time shouldn't be a factor), I'll take off 10 points per minute from the score of any student who doesn't turn in his or her test when time is up. Also, if you arrive late, you can take the test, but you still have to finish at the same time as everyone else.
  - You might also want to be aware of my make-up test policy, which is on p. 10 of the syllabus (pp. 1–20 of which can be downloaded from the course web site, at http://web.ku.edu/~utile/courses/reason2).

in lecture on Wednesday, April 11:

- ❑ You'll take the test on chapters 7–9.
- ❑ Also, be sure to pick up the final section of the syllabus.

discussion sections April 11–16:

Discussion sections won't meet this week.

before lecture on Monday, April 16:

Check the next section of the syllabus for this assignment. (You can download it as a PDF file from the course web site, at http://web.ku.edu/~utile/courses/reason2, if you didn't get a hard copy of it after the test on April 11.)

Answer key for practice test on chapters 7–9:

A	A	D	A	C	B	D	E	A	I	O	I
1	2	3	4	5	6	7	8	9	10	11	12

E	O	A	F	D	A	B	E	B	G	I
13	14	15	16	17	18	19	20	21	22	23

24. 1. ~P & Q (premise)
    2. R → P (premise)
    3. Q (1, simplification)
    4. ~P (1, simplification)
    5. ~R (2, 4, modus tollens)
    6. Q & ~R (3, 5, conjunction)

Answer key for test on chapters 7–9:

B	A	C	B	B	A	C	F	E	A	E	O
1	2	3	4	5	6	7	8	9	10	11	12

A	I	A	D	D	B	A	C	A	C	H
13	14	15	16	17	18	19	20	21	22	23

24. 1. Q → (P → R) (premise)
    2. ~R & Q (premise)
    3. Q (2, simplification)
    4. P → R (1, 3, modus ponens)
    5. ~R (2, simplification)
    6. ~P (4, 5, modus tollens)

University of Kansas, Fall 2006
Philosophy 148: Reason and Argument
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Wednesday, November 8, 2006

Practice Test on Chapters 7–9

[Here are the instructions that will be on the real test.] This test has 24 questions. They are all equally weighted, except that questions 7, 8, 15, 16, 20, and 24 are double-weighted. You can mark up the questions, but you must write your answers to all of the questions except the last one in the blanks below. No credit will be awarded for answers to questions 1–23 written below the row of blanks provided for your answers to questions 13–23.

1	2	3	4	5	6	7	8	9	10	11	12

13	14	15	16	17	18	19	20	21	22	23

1. An argument whose premises are intended to guarantee the truth of the argument's conclusion is

   (A) deductive
   (B) inductive
   (C) valid
   (D) sound
   (E) strong

2. Can a strong argument have true premises and a false conclusion?

   (A) yes
   (B) no

3. Which claim, if supplied as a premise, would make this a valid argument? "It isn't too late, because the bars haven't closed."

   (A) "All bars stay open late."
   (B) "If the bars have closed, then it's too late."
   (C) "If it isn't too late, the bars haven't closed."
   (D) "As long as the bars haven't closed, it isn't too late."

4. Which claim, if supplied as a premise, would make this a valid argument? "Computer networks are safe from computer viruses only if they're completely isolated from other machines. So, this network is not safe from computer viruses."

   (A) "This network is not completely isolated from other machines."
   (B) "This network has gotten computer viruses from other machines in the past."
   (C) "Computer viruses are spread from one machine to another, often over networks."
   (D) "If a network is not completely isolated from other machine, then it is not safe from computer viruses."

5. Which claim, if supplied as a premise, would make this a strong argument? "You shouldn't vote for Melton, because he is a radical."

   (A) "Radicals rarely get many votes."
   (B) "Radicals tend to make big changes."
   (C) "You probably shouldn't vote for any radical."
   (D) "If you shouldn't vote for someone, then he or she is probably a radical."

6. Which claim, if supplied as a premise, would make this a strong argument? "No floor with two-by-four joists on two-foot centers is strong enough. So, this floor isn't strong enough."

   (A) "Two-by-four joists on two-foot centers are probably not strong enough."
   (B) "This floor probably has two-by-four joists on two-foot centers."
   (C) "Two-by-six joists on one-foot centers would probably be a lot stronger."
   (D) "This floor probably does not have two-by-six joists on one-foot centers."

7. Which of the diagrams on the left side of the last page of this test is the best diagram for this argument?
   "(1) That television set is much too big for your living room. Plus, (2) you shouldn't buy a television set that costs over $300, and (3) that one costs $450. So, (4) you shouldn't buy that television set."
   (You should draw your own diagram and match it to an answer choice—that will be faster than trying all the answer choices.)

8. Which of the diagrams on the left side of the last page of this test is the best diagram for this argument?
"(1) If she really thought those clothes were unflattering, she wouldn't wear them so much. So (2) she must not think they are unflattering. Plus, (3) she hates it when people borrow things without asking. So (4) we had better leave them in her closet."
(Again, you should draw your own diagram and match it to an answer choice rather than trying all the answer choices.)

For each of the next six claims, identify the standard form into which it should be translated. Here are the standard forms:

(A) All _____ are _____.
(E) No _____ are _____.
(I) Some _____ are _____.
(O) Some _____ are not _____.

9. "Every product that's organic is chemical-free."

10. "There are chemical-free products that are organic."

11. "Chemical-free products are not the only organic products."

12. "A few savings institutions are banks."

Now start using the second row of answer blanks.

13. "Banks cannot be savings institutions."

14. "People don't always like it when Gary picks up a golf club."

15. Which Venn diagram and judgment of 'valid' or 'invalid' (of those shown on the right side of the last page of this test) is appropriate for this argument?
"People who want recordings of music that are faithful to the original are people who will find that CD's cannot be surpassed. You want recordings of music that are faithful to the original. So, you will find that CD's cannot be surpassed."
(As above, you should draw your own diagram and match it to an answer choice rather than trying all the answer choices.)

16. Which Venn diagram and judgment of 'valid' or 'invalid' (of those shown on the right side of the last page of this test) is appropriate for this argument?
"All weather forecasters are predictors of future events. Some predictors of future events are geniuses. Therefore, some geniuses are weather forecasters."
(Again, you should draw your own diagram and match it to an answer choice rather than trying all the answer choices.)

For the next three questions, symbolize the given claim, using these letters:

A: We plant annuals.
C: We plant from cuttings.
P: We plant perennials.
S: We plant from seed.

17. "We can plant perennials only if we plant from cuttings."

(A) C & P
(B) P & C
(C) C → P
(D) P → C

18. "We cannot plant perennials if we plant either from seed or from cuttings."

(A) (S v C) → ~P
(B) ~(S v C) → P
(C) ~P → (S v C)
(D) P → ~(S v C)

19. "We can plant neither perennials nor annuals if we don't plant from both cuttings and seed."

(A) (C & S) → (P & A)
(B) ~(C & S) → ~(P v A)
(C) (P v A) → ~(C & S)
(D) ~(P & A) → (C & S)

20. Consider the following argument:
Q v P
~Q → ~R
therefore R → P
Which line in the standard truth table for this argument (with P, Q, and R as the reference columns, in that order) shows that it is invalid?
(Use blank space anywhere on this test to write your own truth table for this question, and then analyze it to ascertain whether the argument is valid.)

(A) 1
(B) 2
(C) 3
(D) 4
(E) 5
(F) 6
(G) 7
(H) 8
(I) none—the table shows that the argument is valid

Here are some derivation rules you may need to know for the next several questions:

disjunctive argument:

P v Q	P v Q
~P	~Q
___	___
Q	P

Please remember to write your answers to the multiple-choice questions in the blanks on the first page.

constructive dilemma:
$P \rightarrow Q$
$R \rightarrow S$
$P \vee R$
_____
$Q \vee S$

destructive dilemma:
$P \rightarrow Q$
$R \rightarrow S$
$\sim Q \vee \sim S$
_____
$\sim P \vee \sim R$

21. With what rule should the blank below be filled in, so that the following deduction contains a correct justification for line 3?
1. $(P \rightarrow Q) \rightarrow R$ (premise)
2. $\sim R$ (premise)
3. $\sim(P \rightarrow Q)$ (1, 2, _____)

(A) modus ponens
(B) modus tollens
(C) chain argument
(D) disjunctive argument
(E) simplification
(F) conjunction
(G) addition
(H) constructive dilemma
(I) destructive dilemma

22. With what rule should the blank below be filled in, so that the following deduction contains a correct justification for line 2?
1. R (premise)
2. R v S (1, _____)

(Use the answer choices from the previous question.)

23. With what rule should the blank below be filled in, so that the following deduction contains a correct justification for line 4?
1. $P \rightarrow M$ (premise)
2. $\sim M \vee \sim Q$ (premise)
3. $S \rightarrow Q$ (premise)
4. $\sim P \vee \sim S$ (1, 2, 3, _____)

(Use the answer choices from the previous question.)

24. In the space below or to the right, write a deduction beginning with the following two lines and eventually arriving at a line asserting $Q \,\&\, \sim R$ with a correct justification.
1. $\sim P \,\&\, Q$ (premise)
2. $R \rightarrow P$ (premise)

Please remember to write your answers to the multiple-choice questions in the blanks on the first page.

7 + 8:

(A) ① ② ③ → ④

(B) ① + ② + ③ → ④

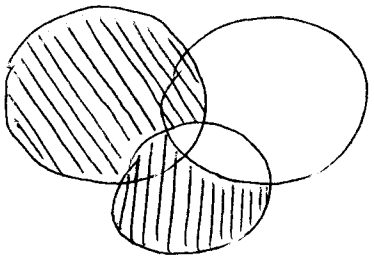
(C) ① + ② ③ → ④

(D) ① ② + ③ → ④

(E) ① → ② ③ → ④

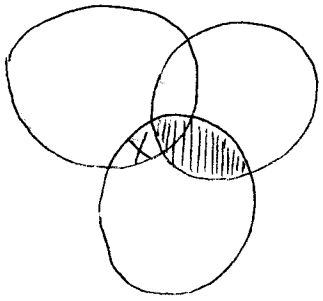
(F) ① → ② → ③ → ④

15 + 16

(A) 

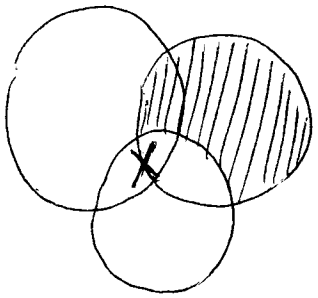
valid

(B) same Venn diagram as in A, but invalid

(C) 

valid

(D) same Venn diagram as in C, but invalid

(E) 

valid

(F) same Venn diagram as in E, but invalid

University of Kansas, Fall 2006
Philosophy 148: Reason and Argument
Ben Eggleston—eggleston@ku.edu
Monday, November 13, 2006

Write your name: _____

	[redacted]	Brandon Gillette	Clark Sexton
Circle the time	W, 3	R, 8	W, 2
of your discussion	R, 3	R, 9	R, 3
section below your	R, 4	F, 8	R, 4
GTA's name:	M, 11	M, 8	F, 9

Test on Chapters 7–9

This test has 24 questions. They are all equally weighted, except that questions 7, 8, 15, 16, 20, and 24 are double-weighted. You can mark up the questions, but you must write your answers to all of the questions except the last one in the blanks below. No credit will be awarded for answers to questions 1–23 written below the row of blanks provided for your answers to questions 13–23.

1	2	3	4	5	6	7	8	9	10	11	12

13	14	15	16	17	18	19	20	21	22	23

1. An argument whose premises are intended to provide some support for the argument's conclusion, but not to guarantee the truth of the argument's conclusion, is

   (A) deductive
   (B) inductive
   (C) valid
   (D) sound
   (E) strong

2. Can a valid argument have false premises?

   (A) yes
   (B) no

3. Which claim, if supplied as a premise, would make this a valid argument? "We should drive in the dark rather than on ice. So, we should wait a while."

   (A) "It is safer to drive in the dark rather than on ice."
   (B) "If we drive on ice, then we will have to wait a while."
   (C) "If we wait a while, then we can drive in the dark rather than on ice."
   (D) "The advantage of getting started earlier is not worth the risk of driving on ice."

4. Which claim, if supplied as a premise, would make this a valid argument? "No floor with two-by-four joists on two-foot centers is strong enough. So, this floor isn't strong enough."

   (A) "Two-by-four joists on two-foot centers are not strong enough."
   (B) "This floor has two-by-four joists on two-foot centers."
   (C) "Two-by-six joists on one-foot centers would be a lot stronger."
   (D) "This floor does not have two-by-six joists on one-foot centers."

5. Which claim, if supplied as a premise, would make this a strong argument? "It is not yet the middle of February, so the almond trees will not have blossomed yet."

   (A) "The almond trees usually blossom before the middle of February."
   (B) "The almond trees usually blossom after the middle of February."
   (C) "The almond trees often blossom throughout February."
   (D) "The almond trees do not often blossom in February."

6. Which claim, if supplied as a premise, would make this a strong argument? "Computer networks are safe from computer viruses only if they're completely isolated from other machines. So, this network is not safe from computer viruses."

   (A) "This network is probably not completely isolated from other machines."
   (B) "This network has probably gotten computer viruses from other machines in the past."
   (C) "Computer viruses are often spread from one machine to another, often over networks."
   (D) "If a network is not completely isolated from other machine, then it is probably not safe from computer viruses."

7. Which of the diagrams on the left side of the last page of this test is the best diagram for this argument? "(1) If your shoes are too small, then you shouldn't wear them, and (2) those are much too small. Besides, (3) they're worn out. So, (4) you shouldn't wear them."
   (You should draw your own diagram and match it to an answer choice—that will be faster than trying all the answer choices.)

8. Which of the diagrams on the left side of the last page of this test is the best diagram for this argument?
"(1) You can't be certified without getting your completion form signed. So, (2) you should get that signed. That means (3) you have to make an appointment with a clerk, and so (4) you have to log on to the system."
(Again, you should draw your own diagram and match it to an answer choice rather than trying all the answer choices.)

For each of the next six claims, identify the standard form into which it should be translated. Here are the standard forms:

(A) All _____ are _____.
(E) No _____ are _____.
(I) Some _____ are _____.
(O) Some _____ are not _____.

9. "There is no organic product that is chemical-free."

10. "Only organic products are chemical-free products."

11. "Chemical-free products are not organic."

12. "Banks are not the only savings institutions."

Now start using the second row of answer blanks.

13. "Banks are the only savings institutions."

14. "People often leave when Andy picks up the accordion."

15. Which Venn diagram and judgment of 'valid' or 'invalid' (of those shown on the right side of the last page of this test) is appropriate for this argument?
"All legislatures are bodies heavily influenced by the legal profession. But all bodies that make the rules for the legal profession are legislatures. So all bodies that make the rules for the legal profession are bodies heavily influenced by the legal profession."
(As above, you should draw your own diagram and match it to an answer choice rather than trying all the answer choices.)

16. Which Venn diagram and judgment of 'valid' or 'invalid' (of those shown on the right side of the last page of this test) is appropriate for this argument?
"No courses that are prohibited will be offered. Some courses that are popular are prohibited. Therefore, some courses that are popular will be offered."
(Again, you should draw your own diagram and match it to an answer choice rather than trying all the answer choices.)

For the next three questions, symbolize each claim, using these letters

A: We plant annuals.
C: We plant from cuttings.
P: We plant perennials.
S: We plant from seed.

17. "If we plant from seed, we'll have to plant annuals."

(A) A & S
(B) S & A
(C) A → S
(D) S → A

18. "If we plant both annuals and perennials, then we can plant from both seed and cuttings."

(A) (A & P) & (S & C)
(B) (A & P) → (S & C)
(C) (A → S) & (P → C)
(D) (A & S) → (P & C)

19. "Either we will plant from cuttings or, if we don't plant perennials, we can plant from seed."

(A) C v (~P → S)
(B) C v ~(P → S)
(C) ~P → (S v C)
(D) ~(P → S) v C

20. Consider the following argument:
P v Q
P → R
therefore R → Q
Which line in the standard truth table for this argument (with P, Q, and R as the reference columns, in that order) shows that it is invalid?
(Use blank space anywhere on this test to write your own truth table for this question, and then analyze it to ascertain whether the argument is valid.)

(A) 1
(B) 2
(C) 3
(D) 4
(E) 5
(F) 6
(G) 7
(H) 8
(I) none—the table shows that the argument is valid

Here are some derivation rules you may need to know for the next several questions:

disjunctive argument:

P v Q	P v Q
~P	~Q
———	———
Q	P

Please remember to write your answers to the multiple-choice questions in the blanks on the first page.

constructive dilemma:
$P \rightarrow Q$
$R \rightarrow S$
$P \vee R$
_____
$Q \vee S$

destructive dilemma:
$P \rightarrow Q$
$R \rightarrow S$
$\sim Q \vee \sim S$
_____
$\sim P \vee \sim R$

21. With what rule should the blank below be filled in, so that the following deduction contains a correct justification for line 3?
1. $(P \& Q)$ (premise)
2. $(P \& Q) \rightarrow (R \vee S)$ (premise)
3. $(R \vee S)$ (1, 2, _____)

(A) modus ponens
(B) modus tollens
(C) chain argument
(D) disjunctive argument
(E) simplification
(F) conjunction
(G) addition
(H) constructive dilemma
(I) destructive dilemma

22. With what rule should the blank below be filled in, so that the following deduction contains a correct justification for line 3?
1. $P \rightarrow (Q \& R)$ (premise)
2. $(Q \& R) \rightarrow S$ (premise)
3. $P \rightarrow S$ (1, 2, _____)

(Use the answer choices from the previous question.)

23. With what rule should the blank below be filled in, so that the following deduction contains a correct justification for line 4?
1. $P \rightarrow Q$ (premise)
2. $P \vee R$ (premise)
3. $R \rightarrow (S \& T)$ (premise)
4. $Q \vee (S \& T)$ (1, 2, 3, _____)

(Use the answer choices from the previous question.)

24. In the space below or to the right, write a deduction beginning with the following two lines and eventually arriving at a line asserting $\sim P$ with a correct justification.
1. $Q \rightarrow (P \rightarrow R)$ (premise)
2. $\sim R \& Q$ (premise)

Please remember to write your answers to the multiple-choice questions in the blanks on the first page.

7 + 8:

(A) ① ② ③ → ④

(B) ① + ② + ③ → ④

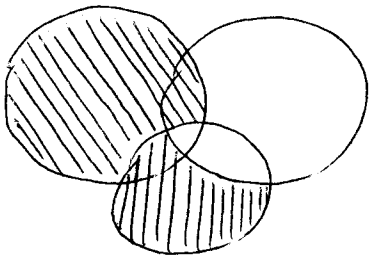
(C) ① + ② ③ → ④

(D) ① ② + ③ → ④

(E) ① → ② ③ → ④

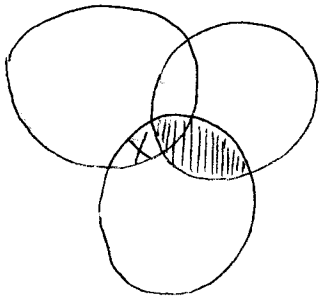
(F) ① → ② → ③ → ④

15 + 16

(A) 

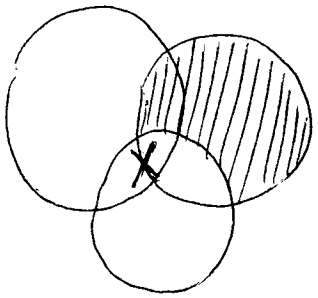
valid

(B) same Venn diagram as in A, but invalid

(C) 

valid

(D) same Venn diagram as in C, but invalid

(E) 

valid

(F) same Venn diagram as in E, but invalid