

## 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.

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- 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
- Can a strong argument have true premises and a false conclusion?  
(A) yes  
(B) no
- 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."
- 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."
- 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."
- 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."
- 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 ∨ C) → ~P  
(B) ~(S ∨ C) → P  
(C) ~P → (S ∨ C)  
(D) P → ~(S ∨ 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 ∨ A)  
(C) (P ∨ A) → ~(C & S)  
(D) ~(P & A) → (C & S)

20. Consider the following argument:

$Q \vee P$   
 $\sim Q \rightarrow \sim R$   
therefore  $R \rightarrow P$

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:  
 $P \vee Q$        $P \vee Q$   
 $\sim P$            $\sim Q$   
——          ——  
Q              P

constructive dilemma:

$P \rightarrow Q$

$R \rightarrow S$

$P \vee R$

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$Q \vee S$

destructive dilemma:

$P \rightarrow Q$

$R \rightarrow S$

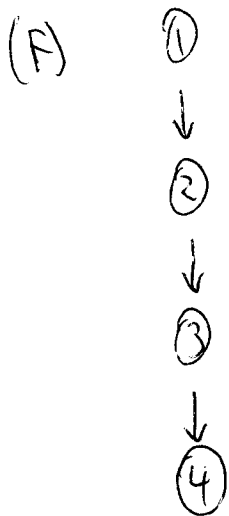
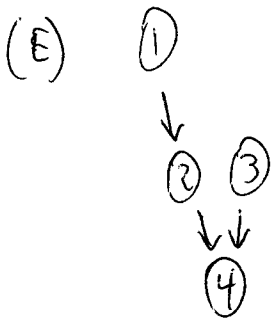
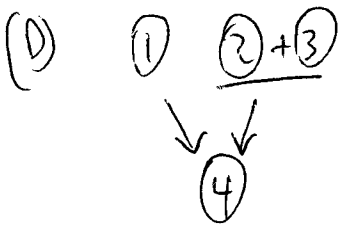
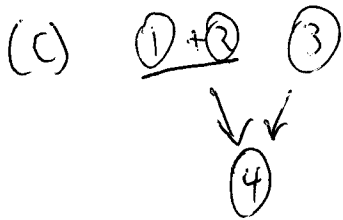
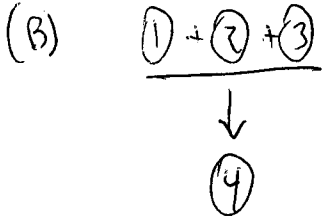
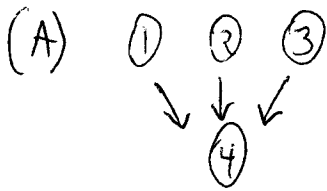
$\sim Q \vee \sim S$

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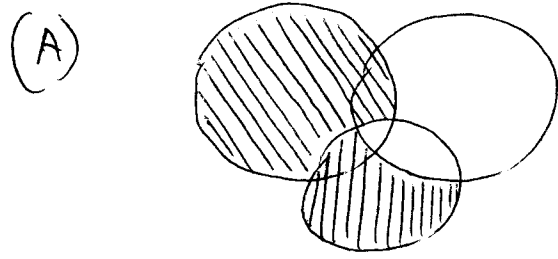
$\sim P \vee \sim R$

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.  $R \vee S$  (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)

$7+8:$

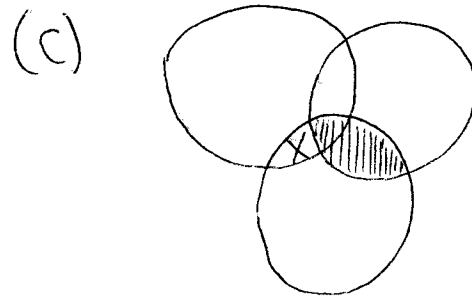


$15+16$



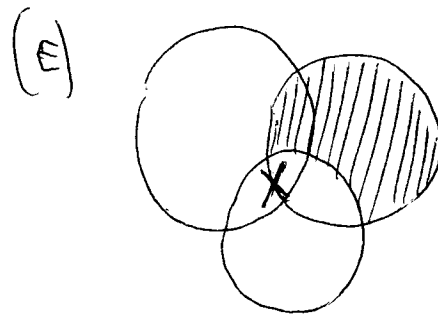
valid

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



valid

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



valid

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