Cornell Critical Thinking Test Series

THE CORNELL CLASS-REASONING TEST, FORM X

by

Robert H. Ennis
William L. Gardiner
Richard Morrow
Dieter Paulus
LuciIIe Ringel

Fill in the blanks when you are asked to do so:

Print your last name only _____

Print your first and middle names_____

Your age on your last birthday _____years

Your date of birth: month_____day_____year _____

Your grade _____

Your school _____

Your regular teacher at this time _____

Today's date: month_____day_____year _____

General directions:

This is a test to see how well you do a particular kind of thinking. We call it "class reasoning". You will see that you already do some of this kind of thinking. The sample questions make clear what is expected.

DO NOT GUESS WlLDLY. There is a scoring penalty for guessing wrong. If you think you have the answer, but are not sure, mark that answer. But if you have no idea, then skip the question.

There are 6 sample questions, then 72 others. You should work as quickly as you can, but do not rush. This is not a speed test. Once you do the samples, you will be able to move right along.

DO NOT TURN THE PAGE UNTIL YOUR EXAMINER TELLS YOU TO DO SO.

Answering the questions:

In answering each question, use only what you are told in that question. In order to do this, you should imagine that your mind is blank, because some of the things you are told are obviously false. Even so, you should suppose that they are true--for that question only.

You will be given one or more sentences with which to think. You will then be given another sentence, about which you must decide, using only what you were told.

There are three possible answers. This is what they mean:

     A. YES   It must be true.
     B. NO   It can't be true.
     C. MAYBE   It may be true or it may not be true.You
                                weren't told enough to be <u>certain </u>whether it
                                is "YES" or "NO".

The meaning of the possible answers is given at the top of each page to help you remember. Each question has only one correct answer.

Mark your answers on this booklet by drawing a circle around the right answer. Remember: If you have no idea what the answer is, <u>skip </u>the question and go on to the next. Do not guess wildly, but if you think you know, then answer the question.

Sample questions:

Read the first question and see how it is marked.

1. Suppose you know that

      Bill is next to Sam.

      Then would this be true?

      Sam is next to Bill.

1. A. (YES)
     B. NO
     C. MAYBE

The correct answer is A, "YES". If Bill is next to Sam, then Sam must be next to Bill. It <u>must be true</u>, so a circle is drawn around "YES".

Here is another sample. This time <u>you </u>circle the answer.

2. Suppose you know that

      The sparrow is over the
         hawk.

      Then would this be true?

      The hawk is over the
         sparrow.

2. A. YES
     B. NO
     C. MAYBE

You should have circled B. "NO". If the sparrow is over the hawk, then the hawk can't be over the sparrow. It <u>can't</u> be true.

Here is a reminder of the meaning of the possible answers:

    A. YES   It must be true.
    B. NO   It can't be true.
    C. MAYBE   It may be true or it may not be true.You
                       weren't told enough to be <u>certain </u>whether it
                       is "YES" or "NO".

Circle the answer to this next sample. Be careful:

3. Suppose you know that	
Jane is standing near Betsy.	3. A. YES
Then would this be true?	B. NO
Betsy is standing near Jane.	C. MAYBE

The correct answer is C, "MAYBE". Even is Jane is standing near Betsy, Betsy may be sitting. Betsy might be standing near Jane, but she might be <u>sitting</u> near Jane, or something else. You were not told enough to be <u>certain</u> about it, so "MAYBE" is the anwer.

Circle the answer to this next sample question. Remember that your mind is supposed to be blank at the beginning of each question.

4. Suppose you know that	
California is near New York.	4. A. YES
Then would this be true?	B. NO
New York is near California.	C. MAYBE

The correct answer is A, "YES", even though New York and California are not really near to each other. If California <u>were</u> near to New York, then New York <u>would be</u> near to California. It would have to be true.

Remember: You should suppose that what you are told is true--for the question you are answering.

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
               weren't told enough to be <u>certain</u> whether it
               is "YES" or "NO".

So far in the sample questions you were told only one thing. In this one you are told two things. Circle your answer.

5. Suppose you know that

The pit is inside of the mouth of the
    fox.
The cherry is inside the mouth of the
    fox.

Then would this be true?

The pit is inside the cherry.

5. A. YES

    B. NO

    C. MAYBE

The correct answer is C, "MAYBE". All you are told is that the pit and the cherry are both in the mouth of the fox. There is no way to be certain whether the pit is in the cherry or not.

Here is the last sample question. This time the letters "X" and "Y" are used. They can stand for anything you like. Circle your answer.

6. Suppose you know that

X is next to Y.

Then would this be true?

Y is next to X.

6. A. YES

    B. NO

    C. MAYBE

The correct answer is A, "YES", no matter what X and Y stand for. If X is next to Y. then Y must be next to X.

Now that you have done the practice questions you probably understand what is expected. If you have any questions, ask them now.

DO NOT TURN THE PAGE UNTIL YOU ARE TOLD TO DO SO.

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
             weren't told enough to be <u>certain</u> whether it
             is "YES" or "NO".

7. Suppose you know that

All the cars in the garage are Mr.
   Smith's.
All Mr. Smith's cars are Fords.

Then would this be true?

All of the cars in the garage are Fords.

7.	A. YES
	B. NO
	C. MAYBE

8. Suppose you know that

All John's pencils are blue.

Then would this be true?

At least some of John's pencils are not
   blue.

8.	A. YES
	B. NO
	C. MAYBE

9. Suppose you know that

All the books about sailing are Bill's.
All the green books are Bill's.

Then would this be true?

At least some of the green books are
   about sailing.

9.	A. YES
	B. NO
	C. MAYBE

10. Suppose you know that

None of Jane's dolls have hats.

Then would this be true?

None of the dolls that have hats are
   Jane's

10.	A. YES
	B. NO
	C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
            weren't told enough to be <u>certain </u>whether it
            is "YES" or "NO".

11. Suppose you know that

   All the red books are John's

   Then would this be true?

   All John's books are red.

   11. A. YES
       B. NO
       C. MAYBE

12. Suppose you know that

   All of Mary's books are about horses.
   None of the books on the shelf are about
      horses.

   Then would this be true?

   At least some of Mary's books are on the
      shelf.

   12. A. YES
       B. NO
       C. MAYBE

13. Suppose you know that

   All Jean's pencils are red.
   All the pencils on the table are red.

   Then would this be true?

   At least some of the pencils on the table
      are Jean's.

   13. A. YES
       B. NO
       C. MAYBE

14. Suppose you know that

   At least some of the children in the
      Martin family take out books from
      the library.
   All people who take out books from the
      library have library cards.

   Then would this be true?

   At least some of the children in the
      Martin family have library cards.

   14. A. YES
       B. NO
       C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
         weren't told enough to be <u>certain </u>whether it
         is "YES" or "NO".

15. Suppose you know that

> All X's are Y's.
> No Z's are Y's.
>
> Then would this be true?
>
> At least some X's are Z's.

15. A. YES

    B. NO

    C. MAYBE

16. Suppose you know that

> At least some of Fred's pencils are green.
>
> Then would this be true?
>
> None of Fred's pencils are green.

16. A. YES

    B. NO

    C. MAYBE

17. Suppose you know that

> None of Sue's books are about animals
>
> Then would this be true?
>
> None of the books about animals are
>   Sue's.

17. A. YES

    B. NO

    C. MAYBE

18. Suppose you know that

> At least some of Kate's pencils are blue.
> All the pencils in the box are blue.
>
> Then would this be true?
>
> At least some of Kate's pencils are in the
>   box.

18. A. YES

    B. NO

    C. MAYBE

Here is a reminder of the meaning of the possible answers:

    A. YES   It must be true.
    B. NO   It can't be true.
    C. MAYBE   I t may be true or it may not be true.You
                   weren't told enough to be <u>certain</u> whether it
                   is "YES" or "NO".

---

19.   Suppose you know that

      All Z's are Y's.
      All Y's are X's.

    Then would this be true?

      All Z's are X's.

19. A. YES

    B. NO

    C. MAYBE

20.   Suppose you know that

      None of the fifth grade boys are on the
         football team.
      John is a fifth grade boy.

    Then would this be true?

      John is not on the football team.

20. A. YES

    B. NO

    C. MAYBE

21.   Suppose you know that

      All the members of the school band have
         been in Boston.
      No one in Frank's class has been in
         Boston.

      At least some members of the school
         band are in Frank's class.

21. A. YES

    B. NO

    C. MAYBE

22.   Suppose you know that

      All X's are Y's.

    Then would this be true?

      At least some X's are not Y's.

22. A. YES

    B. NO

    C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
              weren't told enough to be certain whether it
              is "YES" or "NO".

23. Suppose you know that

    All boys are painters.
    All children are painters.

  Then would this be true?

    At least some children are boys.

23. A. YES

    B. NO

    C. MAYBE

24. Suppose you know that

    All the second grade children are out on
      the playground.

  Then would this be true?

    All the children out on the playground
      are in the second grade.

24. A. YES

    B. NO

    C. MAYBE

25. Suppose you know that

    At least some of the books on the table
      are about stars.
    None of Bob's books are about stars.

  Then would this be true?

    All of the books on the table are Bob's.

25. A. YES

    B. NO

    C. MAYBE

26. Suppose you know that

    All the boys in John's class are football
      players.
    Fred is a football player.

  Then would this be true?

    Fred is not in John's class.

26. A. YES

    B. NO

    C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
             weren't told enough to be <u>certain</u> whether it
             is "YES" or "NO".

27. Suppose you know that

   All the pets of the Greens won some
      prize in the pet show.
   Fido is one of the Greens' pets.

   Then would this be true?

   Fido won a prize in the pet show.

27. A. YES

    B. NO

    C. MAYBE

28. Suppose you know that

   No animals are dogs.

   Then would this be true?

   No dogs are animals.

28. A. YES

    B. NO

    C. MAYBE

29. Suppose you know that

   Eileen is one of the children on the
      playground.

   Then would this be true?

   Eileen is not one of the children on the
      playground.

29. A. YES

    B. NO

    C. MAYBE

30. Suppose you know that

   All X's are Y's.

   Then would this be true?

   All Y's are X's.

30. A. YES

    B. NO

    C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
            weren't told enough to be certain whether it
            is "YES" or "NO".

31. Suppose you know that

All cats can fly.
All animals that can fly are black.

Then would this be true?

All cats are black.

31. A. YES

    B. NO

    C. MAYBE

32. Suppose you know that

All the things in the trunk are Bill's.
The brown baseball bat is Bill's.

Then would this be true?

The brown baseball bat is in the trunk.

32. A. YES

    B. NO

    C. MAYBE

33. Suppose you know that

None of Bob's books are on the table, but
    there are books on the table.

Then would this be true?

At least some of the books on the table
    are not Bob's

33. A. YES

    B. NO

    C. MAYBE

34. Suppose you know that

All X's are Y's.
All Z's are Y's.

Then would this be true?

At least some Z's are X's.

34. A. YES

    B. NO

    C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
             weren't told enough to be <u>certain</u> whether it
             is "YES" or "NO".

35.   Suppose you know that

   All Mary's pencils are yellow.

   Then would this be true?

   At least some of Mary's pencils are not
      yellow.

35. A. YES

    B. NO

    C. MAYBE

36.   Suppose you know that

   All pencils are heavy.
   Nothing made of wood is heavy.

   Then would this be true?

   At least some pencils are made of wood.

36. A. YES

    B. NO

    C. MAYBE

37.   Suppose you know that

   At least some of the green pencils are
      Dick's.

   Then would this be true?

   All Dick's pencils are green.

37. A. YES

    B. NO

    C. MAYBE

38.   Suppose you know that

   No X's are Y's.

   Then would this be true?

   No Y's are X's.

38. A. YES

    B. NO

    C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
              weren't told enough to be certain whether it
              is "YES" or "NO".

39. Suppose you know that

     All dogs are brown.

     Then would this be true?

     At least some dogs are not brown.

39. A. YES

    B. NO

    C. MAYBE

40. Suppose you know that

     All the cookies Jane made for the fair
         had nuts in them.
     All the cookies with nuts in them were
         sold.

     Then would this be true?

     All the cookies Jane made for the fair
         were sold.

40. A. YES

    B. NO

    C. MAYBE

41. Suppose you know that

     All brown animals have four legs.

     Then would this be true?

     All animals with four legs are brown.

41. A. YES

    B. NO

    C. MAYBE

42. Suppose you know that

     All members of the football team weigh
         over 150 pounds.
     Henry does not weigh over 150 pounds.

     Then would this be true?

     Henry is on the football team.

42. A. YES

    B. NO

    C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
              weren't told enough to be <u>certain</u> whether it
              is "YES" or "NO".

43. Suppose you know that

All of John's candy is in the box.
All of the candy that is not chocolate is
    also not in the box.

Then would this be true?

At least some of John's candy is not
    chocolate.

43. A. YES

B. NO

C. MAYBE

44 Suppose you know that

All the papers in the box are torn.
None of John's papers are in the box.

Then would this be true?

None of John's papers are torn.

40. A. YES

B. NO

C. MAYBE

45. Suppose you know that

All of the boys are singing.

Then would this be true?

All of the people who are not singing are
    also not boys.

45. A. YES

B. NO

C. MAYBE

46. Suppose you know that

All the math homework is due today.
None of John's homework is due today.
All the homework for Mr. Miller's class
    is math homework.

Then would this be true?

None of John's homework is for Mr.
    Miller's class.

46. A. YES

B. NO

C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
               weren't told enough to be <u>certain</u> whether it
               is "YES" or "NO".

47. Suppose you know that

All the pencils in the box are green.
All Sue's pencils are sharp.
All the green pencils are Sue's.

Then would this be true?

At least some of the pencils in the box
        are not sharp.

47. A. YES

    B. NO

    C. MAYBE

48. Suppose you know that

None of my shirts are wool.
None of the shirts hanging up in the
        closet are wool.

Then would this be true?

At least some of my shirts are hanging
        up in the closet.

48. A. YES

    B. NO

    C. MAYBE

49. Suppose you know that

All X's are Y's.

Then would this be true?

All things that are not Y's are also not
        X's.

49. A. YES

    B. NO

    C. MAYBE

50. Suppose you know that

All four-legged animals can fly.
No horses can fly.
All fast runners are four-legged animals.

Then would this be true?

No horses are fast runners.

50. A. YES

    B. NO

    C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
              weren't told enough to be <u>certain</u> whether it
              is "YES" or "NO".

51. Suppose you know that

All of the boys in the class collect
  stamps.
All students who are not members of the
  Stamp Club also do not collect
  stamps.

Then would this be true?

At least some of the boys in the class are
  not members of the Stamp Club.

51. A. YES

    B. NO

    C. MAYBE

52. Suppose you know that

All of the boys are running, but not
  everyone is running.

Then would this be true?

At least some of the people not running
  are not boys.

52. A. YES

    B. NO

    C. MAYBE

53. Suppose you know that

None of Tom's books are on the shelf.
No science books are on the shelf.

Then would this be true?

At least some of Tom's books are science
  books.

53. A. YES

    B. NO

    C. MAYBE

54. Suppose you know that

All of Bill's five uncles are allowed to
  drive.
All people who have a license have
  passed a driving test.
All people who are allowed to drive
  have a license.

Then would this be true?

At least one of Bill's uncles has not
  passed a driving test.

54. A. YES

    B. NO

    C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
              weren't told enough to be certain whether it
              is "YES" or "NO".

55. Suppose you know that

   All of the band members are working.

   Then would this be true?

   Everyone who is not working is also not
      in the band.

   55. A. YES

      B. NO

      C. MAYBE

56. Suppose you know that

   All the books on the shelf belong to the
      library.
   No science books belong to the library.
   At least some of the books that Elmer
      likes are on the shelf.

   Then would this be true?

   At least some of the books that Elmer
      likes are not science books.

   56. A. YES

      B. NO

      C. MAYBE

57. Suppose you know that

   All the people who live on Main Street
      were born in Milltown.
   None of the students in Room 352 live
      on Main Street.

   Then would this be true?

   None of the students in Room 352 were
      born in Milltown.

   57. A. YES

      B. NO

      C. MAYBE

58. Suppose you know that

   At least some of Mr. Johnes' students
      ride the bus to school.
   All students who live on Route 55 own
      dogs.
   All students who ride the bus to school
      live on Route 55.

   Then would this be true?

   58. A. YES

      B. NO

      C. MAYBE

None of Mr. Johnes' students own dogs.

Here is a reminder of the meaning of the possible answers:

    A. YES   It must be true.
    B. NO   It can't be true.
    C. MAYBE   I t may be true or it may not be true.You
                     weren't told enough to be <u>certain </u>whether it
                     is "YES" or "NO".

59.   Suppose you know that

      All Y's are X's.
      No Z's are Y's.

      Then would this be true?

      No Z's are X's.

59. A. YES

     B. NO

     C. MAYBE

60.   Suppose you know that

      All teachers are college graduates.
      All people who have gone to high
         school are men.
      All college graduates have gone to high
         school.

      Then would this be true?

      At least some teachers are not men.

60. A. YES

     B. NO

     C. MAYBE

61.   Suppose you know that

      All Z's are Y's.
      No X's are Y's.
      All T's are Z's.

      Then would this be true?

      No X's are T's.

61. A. YES

     B. NO

     C. MAYBE

62.   Suppose you know that

      All students who do not have a star are
         also not swimmers.
      Frances is a swimmer.

      Then would this be true?

      Frances does not have a star.

62. A. YES

     B. NO

     C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE I t may be true or it may not be true.You
          weren't told enough to be <u>certain</u> whether it
          is "YES" or "NO".

63. Suppose you know that

All the people in the auditorium are
  watching a movie.
All students in the senior play are in the
  auditorium.
Esther is a student in the senior play.

Then would this be true?

Esther is not watching a movie.

63. A. YES

B. NO

C. MAYBE

64. Suppose you know that

All birds have three eyes.
No ducks are birds.

Then would this be true?

No ducks have three eyes.

64. A. YES

B. NO

C. MAYBE

65. Suppose you know that

No Z's are Y's.
No X's are Y's.

Then would this be true?

At least some Z's are X's.

65. A. YES

B. NO

C. MAYBE

66. Suppose you know that

All of the red pencils are broken.
Emil's pencil is not broken.

Then would this be true?

Emil's pencil is not red.

66. A. YES

B. NO

C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true. You
                 weren't told enough to be <u>certain</u> whether it
                 is "YES" or "NO".

67. Suppose you know that

All Z's are Y's.
All Things that are not X's are also not
    Y's.

Then would this be true?

At least some Z's are not X's.

67.	A. YES
	B. NO
	C. MAYBE

68. Suppose you know that

At least some of Mrs. Brown's flowers
    are not roses.
At least some of the flowers in the
    flower show are not roses.

Then would this be true?

At least some of Mrs. Brown's flowers
    are in the flower show.

68.	A. YES
	B. NO
	C. MAYBE

69. Suppose you know that

All the pencils in the box are yellow.
None of the broken pencils are yellow.
All Dick's pencils are in the box.

Then would this be true?

None of the broken pencils are Dick's.

69.	A. YES
	B. NO
	C. MAYBE

70. Suppose you know that

All the people who live near the lake can
    swim.
None of the students in Mr. Smith's class
    live near the lake.

Then would this be true?

At least some of the students in Mr.
    Smith's class cannot swim.

70.	A. YES
	B. NO
	C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
         weren't told enough to be <u>certain</u> whether it
         is "YES" or "NO".

71. Suppose you know that

> None of the houses on Main Street are
>   made of brick.
> Allan's house is not made of brick.
>
> Then would this be true?
>
> Allan's house is on Main Street.

71. A. YES

     B. NO

     C. MAYBE

72. Suppose you know that

> At least some of the boys in the class
>   have bicycles.
> All those who are not here also do not
>   have bicycles.
>
> Then would this be true?
>
> No boys in the class are here.

72. A. YES

     B. NO

     C. MAYBE

73. Suppose you know that

> All dogs are red.
>
> Then would this be true?
>
> All animals that are not red are also not
>   dogs.

73. A. YES

     B. NO

     C. MAYBE

74. Suppose you know that

> All Mr. Smith's cars have polished
>   bumpers.
> The red car does not have a polished
>   bumper.
> All the cars in the garage are Mr.
>   Smith's.
>
> Then would this be true?
>
> The red car is not in the garage.

74. A. YES

     B. NO

     C. MAYBE

Here is a reminder of the meaning of the possible answers:

A. YES   It must be true.
B. NO   It can't be true.
C. MAYBE   I t may be true or it may not be true.You
               weren't told enough to be <u>certain </u>whether it
               is "YES" or "NO".

75. Suppose you know that

No ducks are birds.
Nothing with large feathers is a bird.

Then would this be true?

At least some ducks have large feathers.

75. A. YES

    B. NO

    C. MAYBE

76. Suppose you know that

All alligators are smart animals.
All animals that cannot sing are also not
    smart.

Then would this be true?

At least some alligators cannot sing.

76. A. YES

    B. NO

    C. MAYBE

77. Suppose you know that

All the students who live in the country
    have pets.
Barbara does not live in the country.

Then would this be true?

Barbara does not have a pet.

77. A. YES

    B. NO

    C. MAYBE

78. Suppose you know that

All X's are Y's.
All Z's are T's.
All Y's are Z's.

Then would this be true?

At least some X's are not T's.

78. A. YES

    B. NO

    C. MAYBE

END OF TEST. GO BACK AND CHECK YOUR ANSWERS.

RE:ml
M/H P18