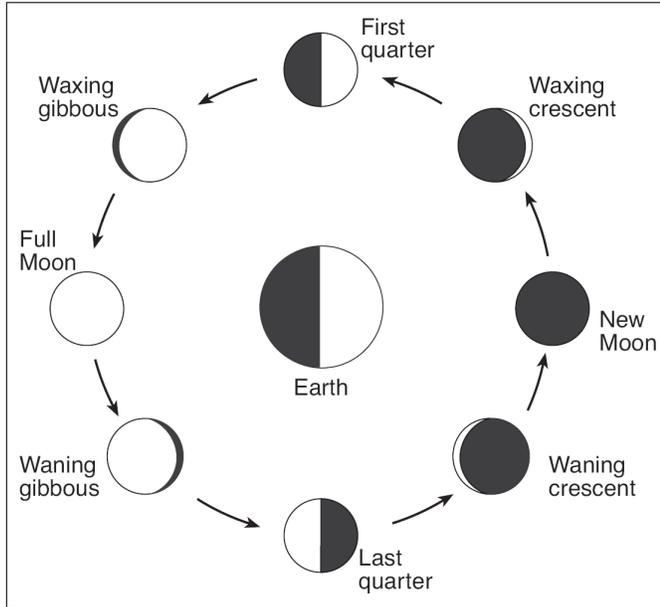


Mid Term Prep-Moon Review 2

Base your answers to questions 1 through 3 on

the diagram below, which shows positions of the Moon in its orbit and phases of the Moon as viewed from New York State.

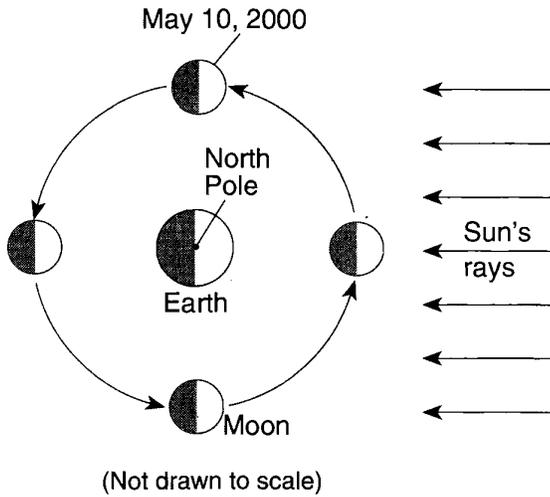


(Not drawn to scale)

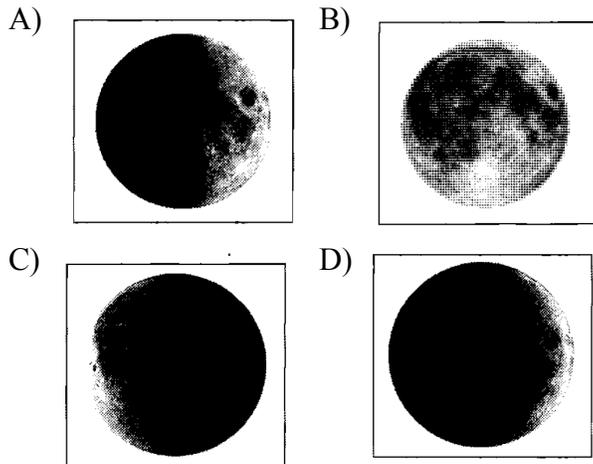
1. Which statement best explains why the same side of the Moon is viewed from Earth as the Moon goes through its phases?
 - A) The Moon does not rotate as it revolves around Earth.
 - B) The Moon's period of rotation equals Earth's period of rotation.
 - C) The Moon's period of rotation equals Earth's period of revolution around the Sun.
 - D) The Moon's period of rotation equals the Moon's period of revolution around Earth.
2. During which Moon phase might a solar eclipse be viewed on Earth?
 - A) new Moon
 - B) first quarter
 - C) full Moon
 - D) last quarter
3. Approximately how many days occur between the Moon's first-quarter phase and the Moon's last-quarter phase?
 - A) 7 d
 - B) 15 d
 - C) 29.5 d
 - D) 365.26 d

Mid Term Prep-Moon Review 2

4. The diagram below shows the Moon at four positions in its orbit around Earth as viewed from above the North Pole. The date of one of the four positions has been labeled.

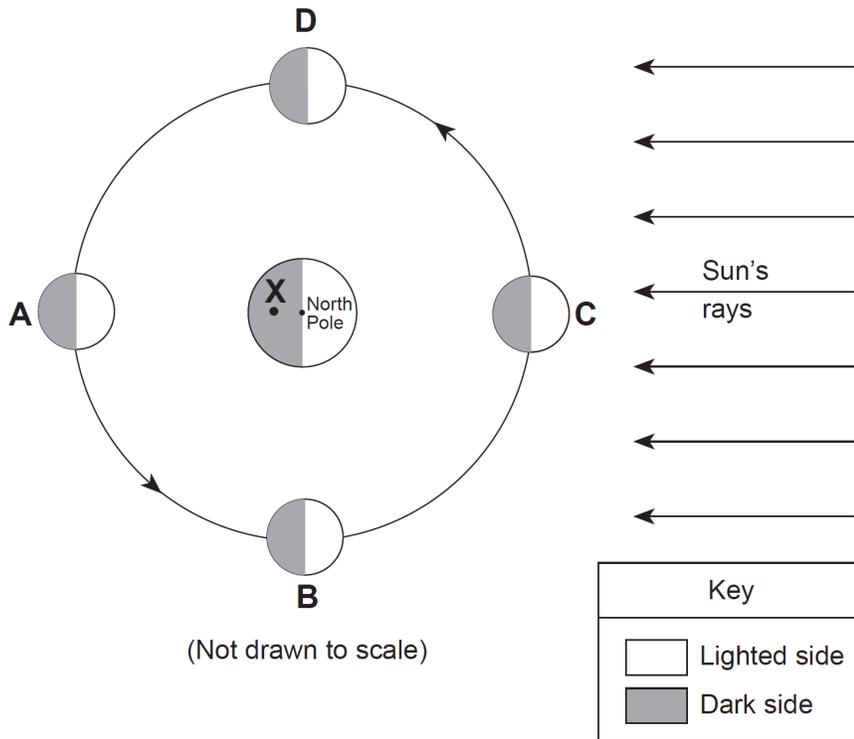


Which photograph shows the appearance of the Moon as viewed by an observer in New York State on May 17, 2000?



Mid Term Prep-Moon Review 2

5. Base your answer to the following question on the diagram below, which shows Earth and the Moon in relation to the Sun. Positions *A*, *B*, *C*, and *D* show the Moon at specific locations in its orbit. Point *X* is a location on Earth's surface.

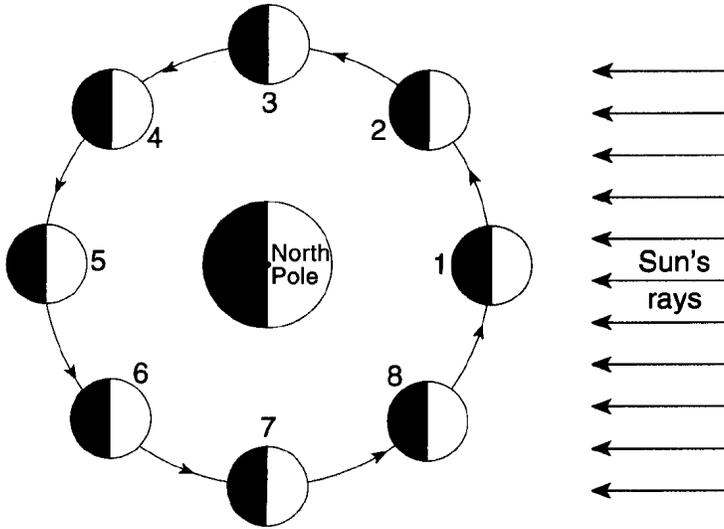


A solar eclipse might occur when the Moon is at location

- A) *A* B) *B* C) *C* D) *D*

Mid Term Prep-Moon Review 2

6. The diagram below shows the Moon as it revolves around Earth. The numbered locations represent different positions of the Moon in its orbit.



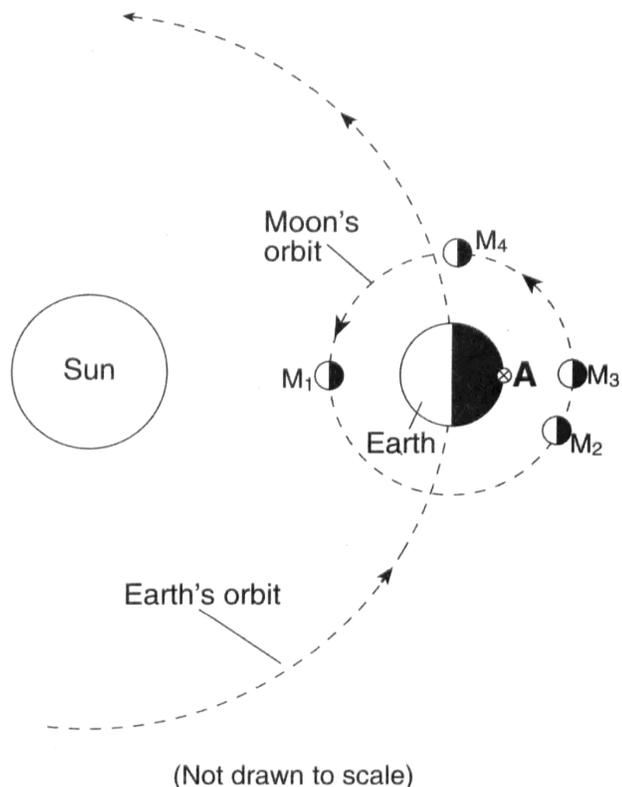
(Not drawn to scale)

Which Moon phase would be seen by an observer in New York State when the Moon is at position 2?

- A)  B)  C)  D) 

Mid Term Prep-Moon Review 2

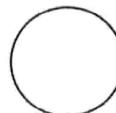
Base your answers to questions 7 and 8 on the diagram below, which shows Earth in orbit around the Sun, and the Moon in orbit around Earth. M_1 , M_2 , M_3 , and M_4 indicate positions of the Moon in its orbit. Letter A indicates a location on Earth's surface.



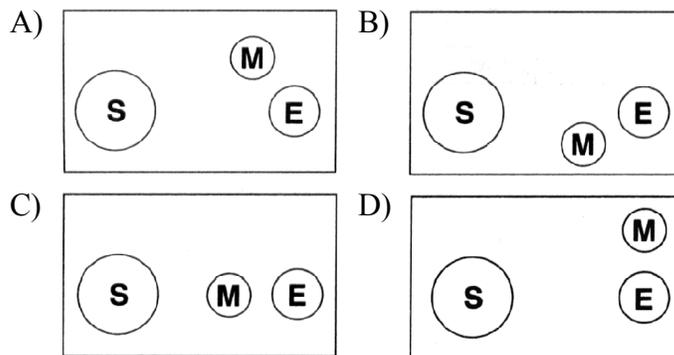
7. At which Moon position could a solar eclipse be seen from Earth?

- A) M_1 B) M_2 C) M_3 D) M_4

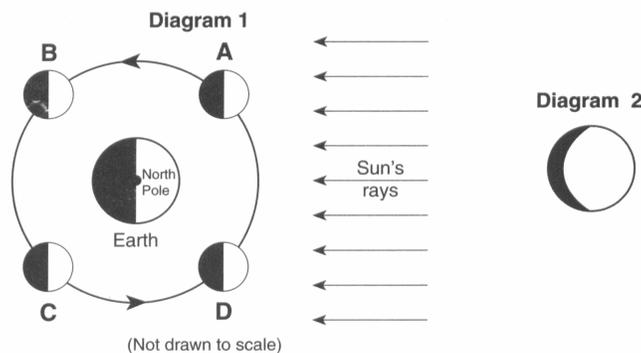
8. An observer at location A on Earth views the Moon when it is at position M_3 . Which phase of the Moon will the observer see?

- A)  B) 
 C)  D) 

9. Which arrangement of the Sun, the Moon, and Earth results in the highest high tides, and the lowest low tides on Earth? (Diagrams are not drawn to scale.)



10. Diagram 1 shows the Moon in its orbit at four positions labeled A, B, C, and D. Diagram 2 shows a phase of the Moon as viewed from New York State.

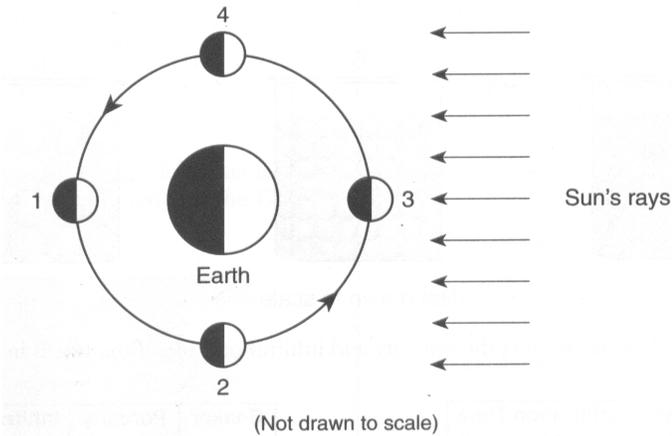


At which labeled Moon position would the phase of the Moon shown in diagram 2 be observed from New York State?

- A) A B) B C) C D) D

Mid Term Prep-Moon Review 2

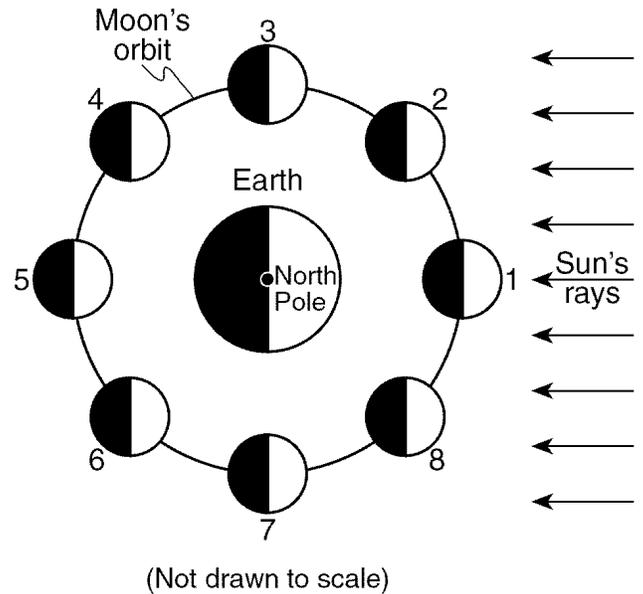
11. The diagram below represents the Sun's rays striking Earth and the Moon. Numbers 1 through 4 represent positions of the Moon in its orbit around Earth.



The highest tides on Earth occur when the Moon is in positions

- A) 1 and 3 B) 2 and 4
 C) 3 and 2 D) 4 and 1
12. The same side of the Moon always faces Earth because the
- A) Moon's period of rotation is longer than its period of revolution around Earth
 B) Moon's period of rotation is shorter than its period of revolution around Earth
 C) Moon rotates once as it completes one revolution around Earth
 D) Moon does not rotate as it completes one revolution around Earth

13. The diagram below shows the Moon orbiting Earth, as viewed from space above Earth's North Pole. The Moon is shown at eight positions in its orbit.

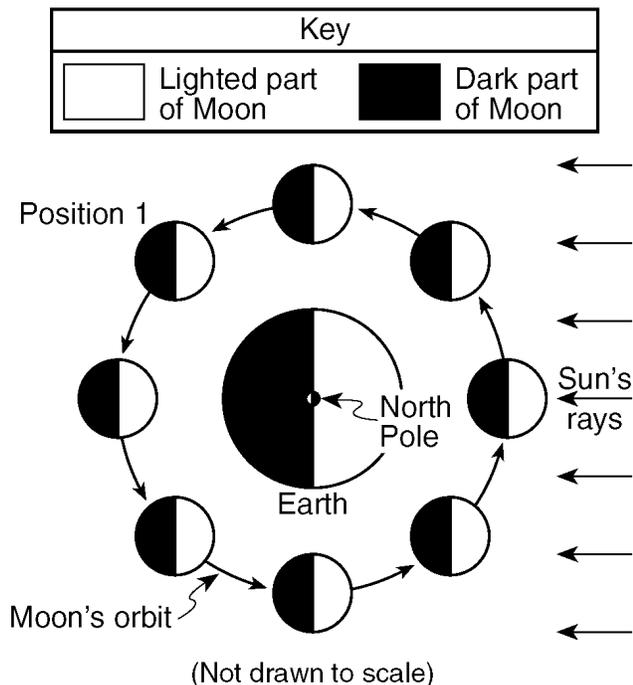


Spring ocean tides occur when the difference in height between high tide and low tide is greatest. At which two positions of the Moon will spring tides occur on Earth?

- A) 1 and 5 B) 2 and 6
 C) 3 and 7 D) 4 and 8

Mid Term Prep-Moon Review 2

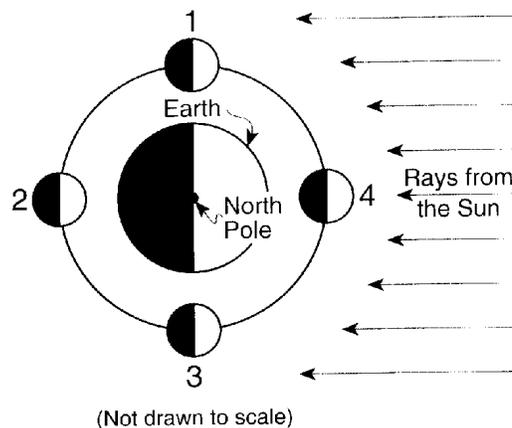
14. The diagram below represents the Moon in its orbit, as viewed from above Earth's North Pole. Position 1 represents a specific location of the Moon in its orbit.



Which phase of the Moon will be seen from Earth when the Moon is at position 1?

- | | |
|-----------------------|-----------------------|
| <p>A) </p> <p>C) </p> | <p>B) </p> <p>D) </p> |
|-----------------------|-----------------------|

15. The diagram below shows the Moon at four positions in its orbit around Earth.

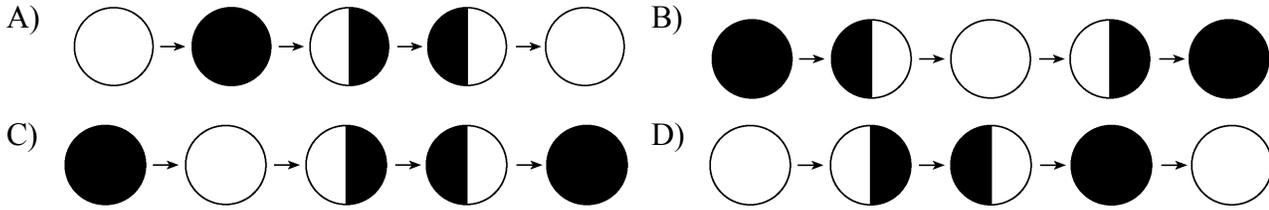


An observer on Earth could see a solar eclipse when the Moon is at position

- A) 1 B) 2 C) 3 D) 4
16. One complete cycle of the phases of the Moon takes approximately one
- A) day B) week
C) month D) year

Mid Term Prep-Moon Review 2

17. Which diagram sequence correctly shows the order of Moon phases, as viewed from Earth, for a period of 1 month? [Note that some phases have been omitted.]

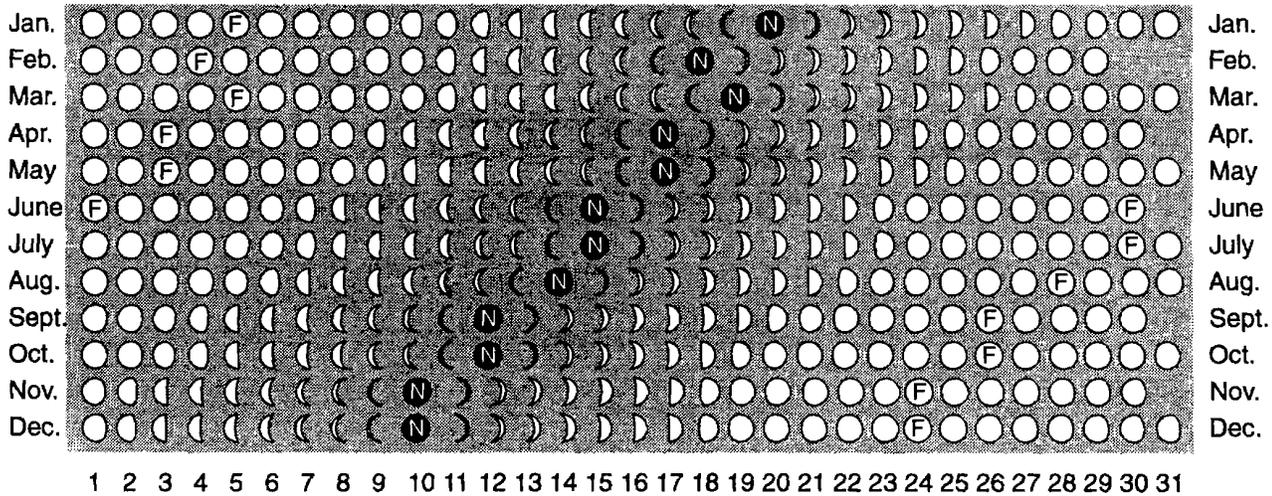


18. A cycle of Moon phases can be seen from Earth because the

- A) Moon's distance from Earth changes at a predictable rate
- B) Moon's axis is tilted
- C) Moon spins on its axis
- D) Moon revolves around Earth

19. Base your answer to the following question on the chart below, which shows phases of the Moon as viewed by an observer on Earth during 1996.

1996 Lunar Phases

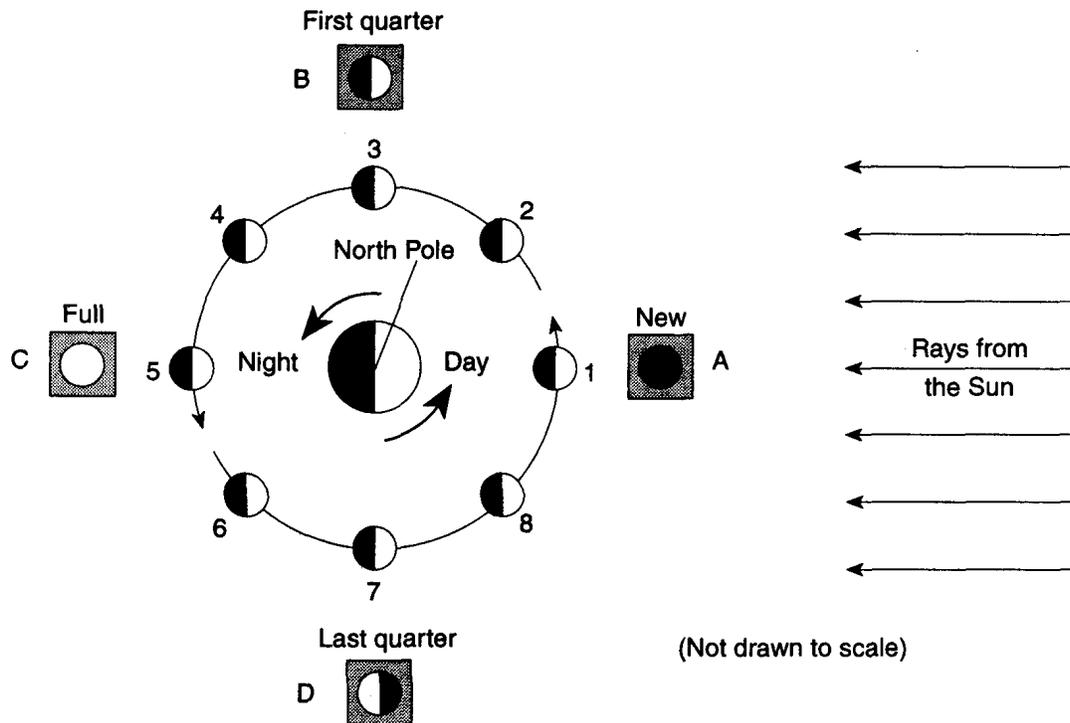


The Moon goes through a complete cycle of phases approximately every

- A) 14 days
- B) 23 days
- C) 29 days
- D) 365 days

Mid Term Prep-Moon Review 2

20. Base your answer to the following question on the diagram below, which represents a model of the Earth-Moon system as viewed from above the North Pole. The numbers 1 through 8 represent positions of the Moon as it revolves around Earth. The parts of the diagram lettered A through D show how the Moon's phases appear to an observer in New Jersey.



As the Moon's phase changes from first quarter to last quarter, the visible portion of the Moon as observed from Earth will

- | | |
|----------------------------|----------------------------|
| A) decrease, only | B) increase, only |
| C) decrease, then increase | D) increase, then decrease |