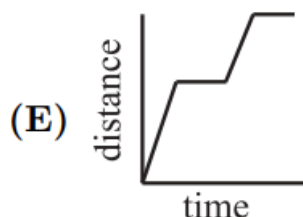
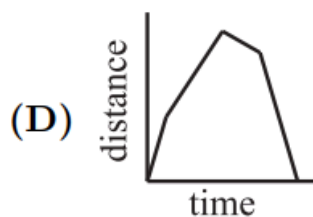
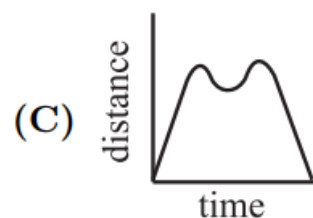
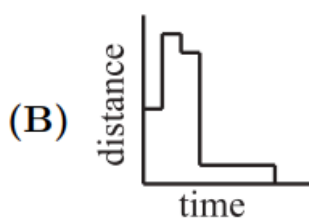
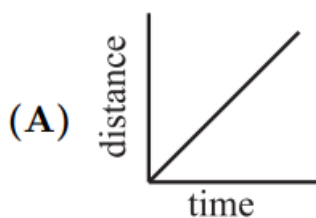
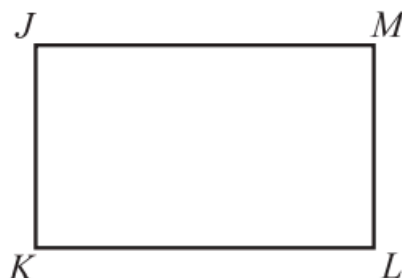


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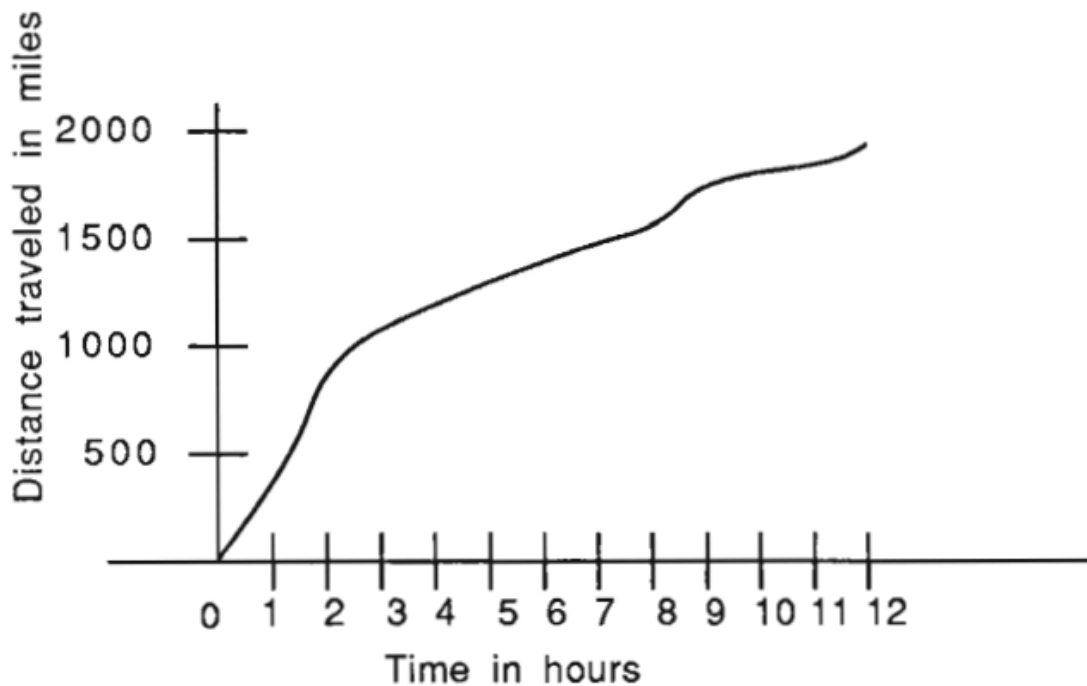
23. Tess runs counterclockwise around rectangular block $JKLM$. She lives at corner J . Which graph could represent her straight-line distance from home?



23. (D) The distance increases as Tess moves from J to K , and continues at perhaps a different rate as she moves from K to L . The greatest distance from home will occur at L . The distance decreases as she runs from L to M and continues at perhaps a different rate as she moves from M to J . Graph D shows these changes.

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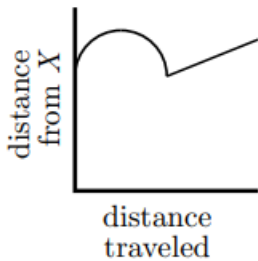
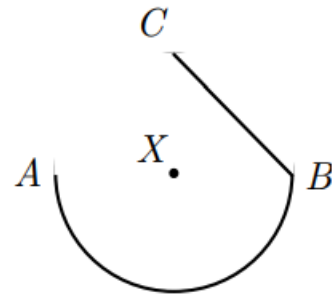
23. The graph relates the distance traveled [in miles] to the time elapsed [in hours] on a trip taken by an experimental airplane. During which hour was the average speed of this airplane the largest?



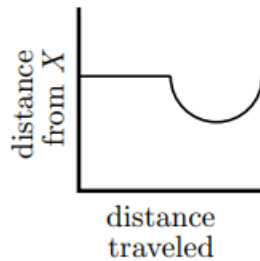
- A) first (0-1) B) second (1-2) C) third (2-3) D) ninth (8-9) E) last (11-12)

23. B The rate will be the largest when the graph is the "steepest". During the second hour the distance traveled is about 500 miles, so the average speed during that hour is about 500 mph. For the other hours, the speeds are less than 350 mph.

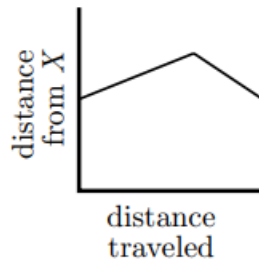
24. A ship travels from point A to point B along a semicircular path, centered at Island X . Then it travels along a straight path from B to C . Which of these graphs best shows the ship's distance from Island X as it moves along its course?



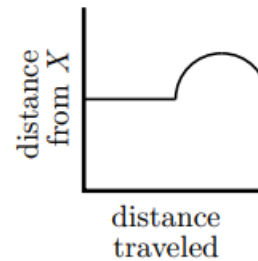
(A)



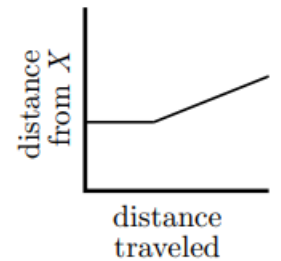
(B)



(C)



(D)



(E)

24. **(B)** All points along the semicircular part of the course are the same distance from X , so the first part of the graph is a horizontal line. As the ship moves from B to D , its distance from X decreases, then it increases as the ship moves from D to C . Only graph B has these features.

