

Use Similar Polygons to Find Perimeter



COSMETICS Adelita is going to attend a cosmetics and jewelry showcase this weekend. She had found a map online that shows all of the booths that will be set up for the event. Adelita wants to visit the booths shown at points A , B , C , and D . On the map, $AB = 3$ inches, $BC = 2$ inches, $CD = 3$ inches, and $AD = 2$ inches. Adelita wants to start at booth A and walk clockwise until she has visited all four booths and has returned to booth A . If Adelita follows this route, her walking path at the showcase will be similar to her path when it is drawn on the showcase map.



What polygon can be used to model Adelita's path between the four booths?

- ☐ A square
- ☐ B rectangle
- ☐ C triangle
- ☐ D rhombus

Part C

What assumptions did you make while solving this problem? Select all that apply.

- ☐ A Adelita does not walk diagonally from booth B to booth D .
- ☐ B Adelita walks in a straight line from one booth to the next.
- ☐ C Adelita does not return to a booth she has already visited until she sees all four booths.
- ☐ D There are no obstructions in Adelita's way as she walks to each booth.

Part B

If the actual distance between the booths at A and D is 30 feet, how far will Adelita have to walk to visit all four booths?