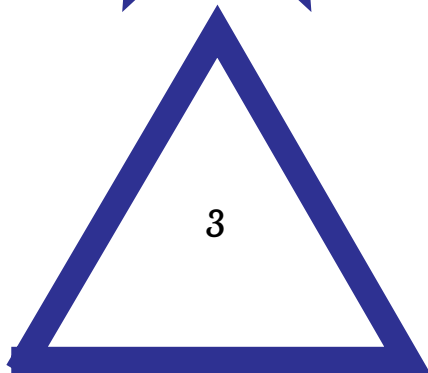
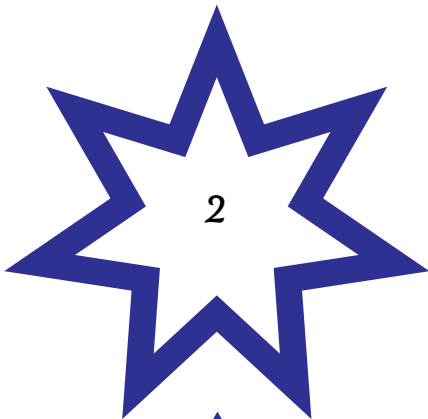
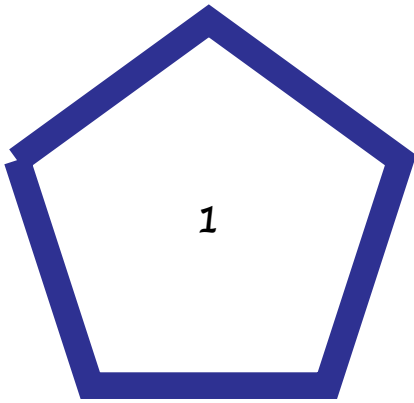
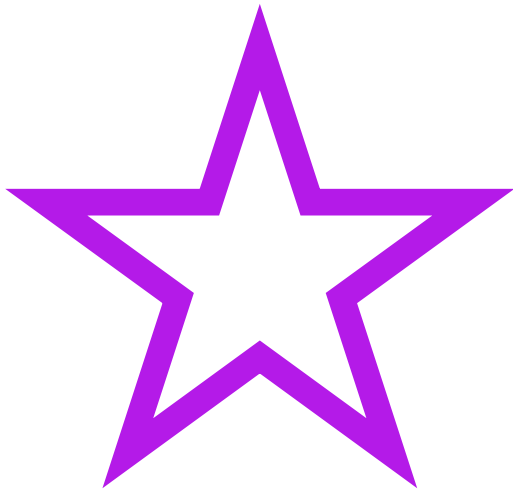


# lesson 1

## PATH



**1.1.** You are already familiar with the polygon element. Replace the polygon by path element inside the first module. Use the first pair of the coordinates in the points attribute of the polygon element as coordinates of moveTo command in the path data attribute of the path element. Use the following coordinates of the points attribute as the coordinates of lineTo commands inside the path data of the path element. In this assignment, you should use the absolute coordinates for **M** and **L** commands. Then close path with the **Z** command.

What will happen if you won't close the path?

Write your answer below.

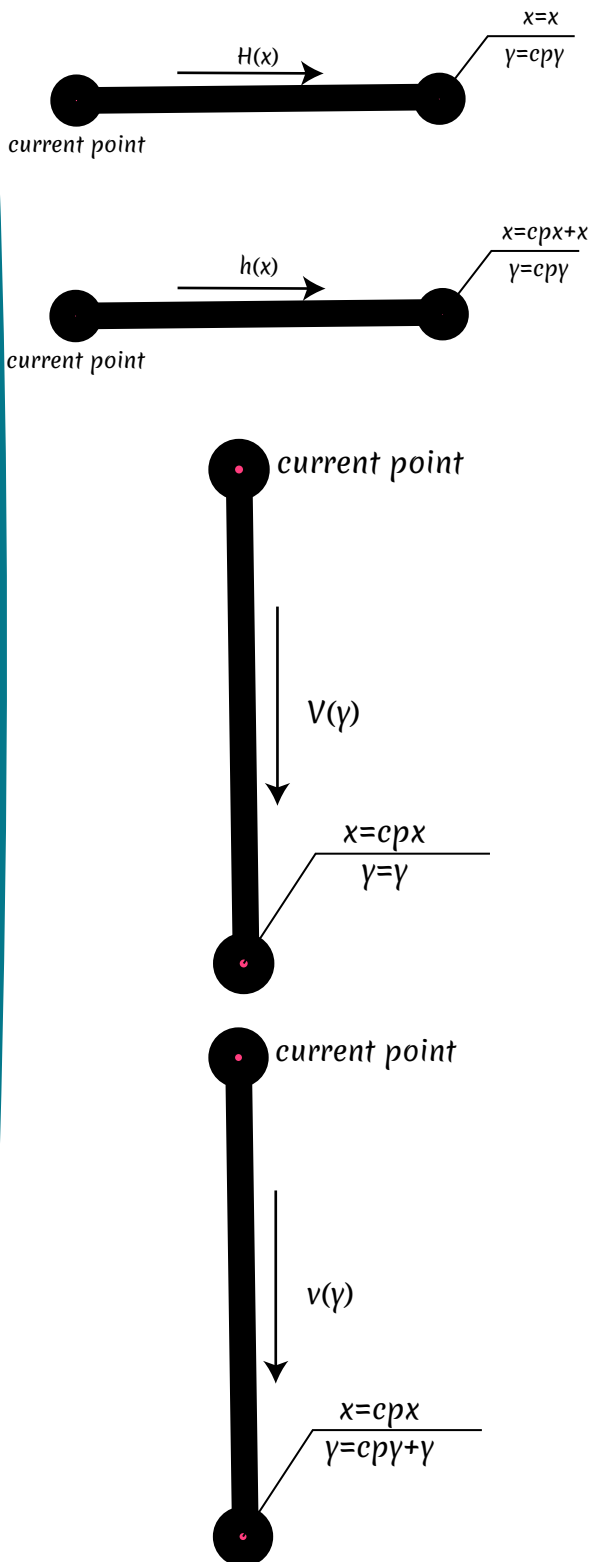
What shapes from these three have closepath command?

Have closepath command \_\_\_\_\_

Doesn't have closepath command \_\_\_\_\_

# lesson 1

## PATH



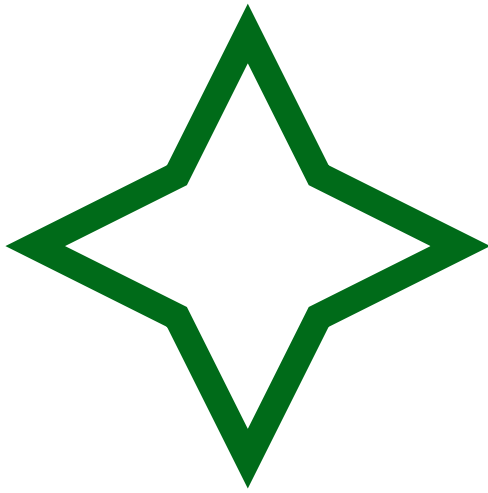
**2.1** Replace the **rect** element by **path** element in the second module. Use the **x** and **y** geometry properties coordinates as the coordinates of the absolute **moveTo(M)** command. In this assignment, you should use **horizontal lineTo(H)**, and **vertical lineTo(V)** commands. Horizontal lineTo accepts only one argument, that is x coordinate. That means that the user agent draws the line from the current point to the point with following coordinates  $x = x$ ,  $y = cpy$ . The vertical lineTo works the same way, but it accepts the y coordinate. If you don't want to do any calculation, you can use the relative horizontal and vertical lineto commands, but I highly recommend you to try both alternatives in this assignment.

**2.2** There is a rect element that has the following attributes:  $x="150"$ ,  $y="100"$ ,  $width="550"$  and  $height="150"$ .

Insert values inside path data to get the same result.

`<path d="M_____H_____V_____H_____V_____Z"/>`

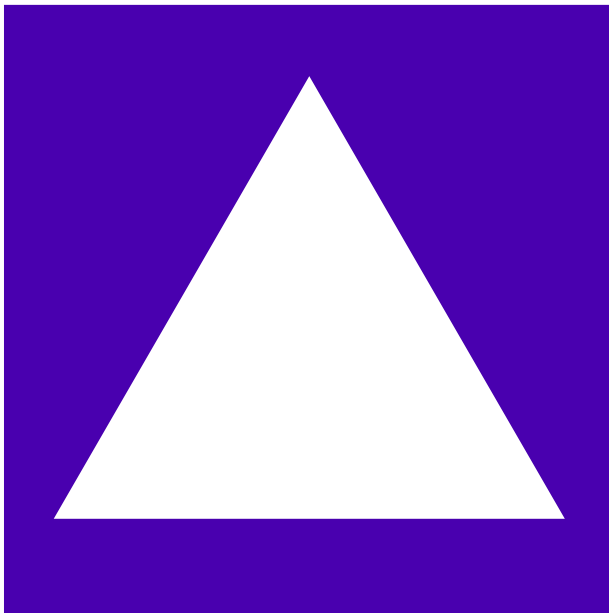
`<path d="m_____h_____v_____h_____v_____z"/>`



**3.1** Fix the code in the module three to get the shape as it is shown in the image.

**3.2** Add another path element to the third module. Copy the values from the `d` attribute of the first path element to the `d` attribute of the second path element. Then rewrite the values of `d` attribute of the second path element by changing the absolute `lineto` commands to relative `lineto` commands.

The image shouldn't change. You could add `transform="translate(500,0)"`, to see the original and the resulting image at the same time.



**4.1** Inside the module four, you can see two shapes the square and the triangle. Create the compound path to get the result you can see in the image. For this purpose, you should create two sub-path inside `d` attribute of the **path** element. Both sub-paths have `closepath` command. The first sub-path in the queue is the square. The algorithm for how to create the compound path you can see in the image below.

# lesson 1

## ***PATH***

