a lawn 10 m 8 m is surrounded by a path 1 m wide find the area of path Solution:

There are some ways of the solution of this question:

The first way:



The area of the path is as the difference of the square of lawn with path (the big rectangle on the picture) and the square of lawn (the small rectangle on the picture)

$$S = S_{big} - S_{small} = (10 + 1 * 2)(8 + 1 * 2) - 10 * 8 = 40 m^2$$

The second way:



The area of the path is as the doubled sum of the squares of two rectangles

$$S = 2(S_1 + S_2) = 2((10 + 1 * 2) * 1 + 8 * 1) = 40 m^2$$

The third way:

The area of the path is as the total length of the path increased to the wide:

 $S = L * W = (10 + 2 + 10 + 2 + 8 + 8) * 1 = 40 m^2$

Answer: the area is 40 m².