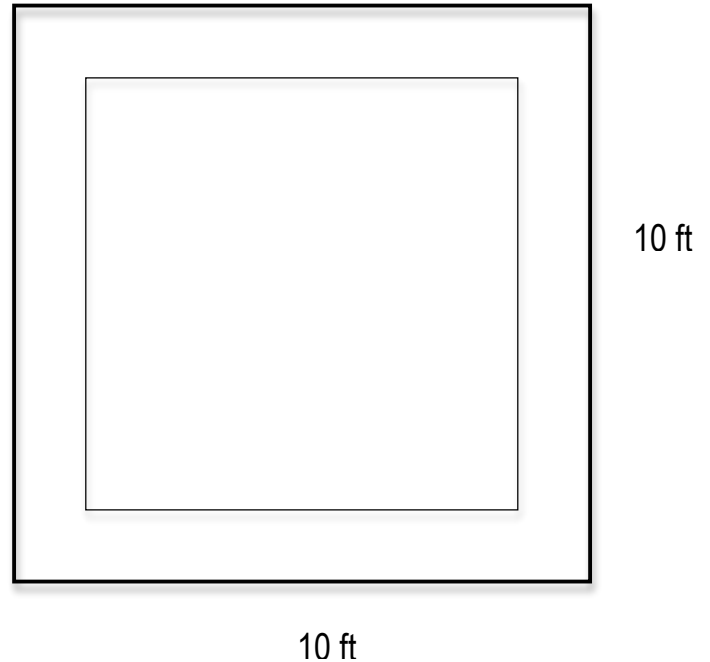# The Garden Border Problem

Ms. S-I is leasing a new apartment and has room for a garden. She wants the garden to be square, 10 feet on each side, and wants to have a tile border around the edges (like in the picture). Each tile in the border is exactly 1 foot by 1 foot.

Part I:

In as many ways as you can, figure out how many tiles Ms. S-I needs for the border of her garden.

10 ft

10 ft

Part II:

    (a.) Using any method from Part I, figure out how many tiles Ms. S-I would need for the border of a 5 ft. by 5 ft. garden.

    (b.) Using *a different* method from Part I, figure out how many tiles Ms. S-I would need for the border of a 5 ft. by 5 ft. garden.

    (c.) How many tiles would Ms. S-I need for the border of a 12 ft. by 12 ft. garden?

    (d.) How many tiles would Ms. S-I need for the border of a 100 ft. by 100 ft. garden?